

# NEW YORK JOURNAL

## SCHOOL

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### LIFE'S JOYS.

By D. C. ADDISON.

Little glimpses of the sunlight  
Shining through the forest trees;  
Wafted perfume of the flowers  
Born upon the summer breeze.

Glimpses of the bright blue ether  
Seen between the floating clouds;  
Fading sunbeams of the twilight,  
Kre the night in darkness shrouds.

Dewdrops with ring in the moonday,  
Glistens on the morning flowers;  
Rainbow with their gorgeous colors,  
Cheering under the sun and showers.

Glimpses of a beautiful landscape  
seen with the lightning's glare;  
Blighted feelings fill the bosom,  
Joy and fear the sense share.

Outlines of a glorious shadow  
Passing through the soul and mind,  
Telling of some higher beat,  
Not to earthly scenes confined.

Such are life's joys, little glimpses  
That with earthly sorrows blend,  
Cheering all our earthly pathway,  
Till we reach our journey's end.

### NATIONAL EDUCATIONAL CONVENTION.

#### TWELFTH ANNUAL MEETING.

The opening exercises of the twelfth annual meeting of the National Educational Association commenced in the hall of the Girls' High and Normal School in West Newton street, Boston, on Tuesday morning last. The large hall was filled with teachers, male and female, and others interested in education from almost every State in the Republic. Among those present from New York City were Commissioners E. O. Jenkins, Hon. L. D. Kiernan, Assistant Superintendents N. A. Calkins and Arthur McMullan, Dr. Anderson, M.D., L. Hayes, W. S. Bosworth, Mr. Ellsworth and other representatives of publishing houses, Miss Marrietta Tremper of Gramma-School No. 34, and Miss Abbe A. Wright, Grammar School No. 29.

The President of the Association, Mr. E. E. White, called the meeting to order, and in a few words introduced the Rev. Dr. Minor, who offered a prayer. On the platform were Mayor Gaston, of Boston; S. H. White, of Illinois, Secretary of the Association; Miss D. A. Lothrop, of Ohio; C. C. Rounds, of Maine; and President Wallace, of Monmouth College, Illinois.

Mayor Gaston welcomed the Association briefly but cordially, and expressed his regret that official duties would prevent his participation in the deliberations of the Association.

Rev. R. C. Waterston was then introduced, and proceeded with the address of welcome. The Association met here today had been in existence fifteen years, and had its meetings all over the country, and the speaker was glad that now it had seen fit to come to New England and the Old Bay State. He welcomed the visitors from nearly every State of the Republic, from Maine to beyond the Rocky Mountains. It had been his privilege to visit most of the States of the Union upon his profession in connection with education, and found that all over the land the cause was cherished even as with us in Massachusetts. In San Francisco he had attended a meeting of the teachers of the State, held morning, noon and evening daily for a week, and had noticed the devotion to the work manifested there, and believing that this spirit extended throughout the country, he felt encouraged in his faith in America and her future greatness. In behalf of the Board of Education in Boston, he extended their welcome to the strangers present. Ten years, the speaker said, had this Association gone on its way, before women were admitted to its organization on an equality with men, but now this shameful neglect was over. The first way in which girls were ever admitted to public schools in Boston was to fill the vacant seats during the farming season when the boys were wanted for out-door work, and now, 150 years after, he would call attention to the progress made when Boston erected such a magnificent building as this one for girls alone. In regard to the hospitality extended to the guests, he said that the keys of the public money were not in his hands, but he hoped the Mayor would see to it, if it had been forgotten by the proper authorities, that proper provision was made in this case.

Mr. F. H. Underwood was next introduced, and commenced his remarks by a humorous allusion to the common idea held by residents of other cities of the Boston man, one who had everything to his

mind; who had a library full of books and wished to buy no more, who was finely clothed, and had plenty of money of his own, and who looked out of his brain as he did from the windows of his granite house, and was, indeed, wholly wrapped up in himself and a contemplation of the vast extent of his own greatness. But the speaker said we were now emerging from such a state, if it had ever existed. Starting with the young President of our great University had inaugurated, the reform was spreading downward, had already reached our high schools, and would soon reach our grammar schools. The speaker was warmly applauded.

The President, Mr. White, made a few earnest remarks, thanking the Mayor as an officer of the city for the cordial welcome extended to the Association. It had been the custom of some presidents of the Association to deliver a set speech on such an occasion as this, but last year this had been broken through, and he would follow the precedent. The first great question in this country to-day was, "How shall we make public education universal?" and the speaker invited all who had plans to further this end to send them in, that they might be compared, and if practicable acted upon. Another great question was the education of women. He regretted that he had received a letter from President White, of Cornell University, stating his inability to be present, and this topic would probably be discussed by some other gentleman. In conclusion he thanked the Association for the signal honor given him by the invitation to preside over its deliberations, and hoped he should be able to perform the work to the satisfaction of those who reposed the trust in him.

#### AFTERNOON SESSION. ELEMENTARY DEPARTMENT.

In the "Department of Elementary Association," at half-past two o'clock, the exercises of the afternoon were opened by the reading of a paper on "Objective Teaching," by N. A. Calkins, Assistant Superintendent of Schools, New York City. The reading was prefaced by a few remarks by Miss D. A. Lothrop, President, and Mr. W. P. Weston, of St. Louis, who was nominated and chosen Secretary of the meeting.

Mr. Z. Richards, of Washington, D. C., opened the discussion upon this paper by referring to the difficulty in giving a name to the presiding officer—whether Mr. or Mrs. President, or Miss Lothrop—and said he would leave the decision to the audience. He thought a thorough reform was needed in our method of primary instruction. The doctrine that object teaching was necessary should be a principle instead of a conviction, as at present. Studying a lesson was a bad if not possibly injurious thing, and he was doubtful if a lesson should be even memorized. Objects should be used largely in teaching all lessons where they can be applied. Conscience taught men that there were such things as right and wrong, but it required demonstration to prove which things were right and which were wrong. He believed we were radically wrong at present in our school-rooms, in our play-rooms and in our school-books, and a purely natural way was needed. It could be proved that children learned more in the first five years after they had opened their eyes upon nature than they did in the school-room during the next five years.

Mr. A. Bronson Alcott, of Concord, compared the life of the child at home, where it could be free and unrestrained, with the artificial life led in the often unattractive school-room. Forty years ago he had taken a room in the Masonic Temple, in Boston, and fitting it up with carpet, statues and pictures, had taught there a school of children. After four years these pupils went home and astonished father, mother and all the family by asking questions and talking upon subjects which children had never been supposed to understand. His assistants in that school, he said, were well known to his hearers—Margaret Fuller and Elizabeth Peabody.

Prof. D. N. Camp, of New Britain, Conn., and Mr. Baker, of Troy, N. Y., followed, the latter referring to Mrs. Willard, of Troy University, whom he contended was not an object teacher, calling Mr. C. Richards to the floor again. Mr. Richards thought that though the lady in question was not an object teacher as the term is now understood, but in reality she was such a teacher, and quoted an anecdote of the lady to prove his point.

Mr. Alcott said the trouble was now that while there were many names for what

children knew, there were many more names for what they did not know, and that after studying for years and learning the names of all the things they did not know, they were ashamed to learn that they had worked so hard to find they knew nothing.

After a recess of five minutes, the paper of Mr. M. A. Newell, of Baltimore, was read, on the subject of "English Grammar in Elementary Schools." As grammar was now taught in the schools it did not have its effect in making the learners perfect speakers or writers, and this proved that either the grammar was unfitted to the present generation of scholars, or that it was not taught in the right way. How many persons there were who were ignorant of grammatical rules or forms, whose language was perfect or nearly so, and how many good grammarians who could not speak two minutes or write three pages without exposing their ignorance of language. The true way to learn anything was by practice, and correct language could be taught by no other way so well as this. He would have the child taught how to use correctly the four or five hundred words in his vocabulary at five years of age, and also to increase this to several thousand by the time he reaches fourteen years. To begin with, the child on first entering school should be taught to pronounce and combine words correctly. After this, that great terror of pupils, composition-writing, will be as easy as to talk. After the first four years a text-book might be found useful, but before that time the speaker considered it likely to prove disastrous.

The discussion upon this subject was opened by W. E. Crosby, of Davenport, Iowa. He thought Mr. Newell, the previous speaker, would have many disciples, but very few followers. He related his own experience with a young lady in a school where he once taught, who was spoken of as one who had beaten all former teachers in the use of grammar, but who was beaten herself by the speaker by hard and persistent study day by day. He further detailed his ideas of the question, giving instances of his own experience and that of others.

Mr. Avery, of Ohio, believed if a child was accustomed to hear correct grammar spoken at home he would naturally speak the same. If not, the contrary result would be true. Adjourned.

**THE NORMAL DEPARTMENT**  
commenced its session at a little before three o'clock, the president, Mr. C. C. Rounds, of Farmington, Me., occupying the chair.

The first paper was read by Mr. J. C. Greenough, Principal of the State Normal School, Rhode Island, and was entitled "The Proper Work of the Normal School." The speaker commenced by saying that normal schools were expected to take the load, both in preparing teachers and imparting methods of instruction. The important part which the normal school ought to have in furnishing teachers of elementary schools, and the importance to the primary pupil of rightly beginning his course of study was then touched upon, the essayist arguing that the beginning was half of the whole. It was urged that the most important things to be regarded in providing professional instruction for teachers were the laws of mental activity and development. The various modes of recitation were then considered, and the importance of pupils of a normal school reciting the lessons assigned them by actual teaching was urged, on the ground that professional skill came by professional drill. The importance of the practical training of a teacher in the principles of mental philosophy was also commented upon, and in conclusion Mr. Greenough remarked that the sources of a teacher's power were to be found in his or her sensibilities rather than the intellect, and that those sensibilities could be awakened by the more general introduction of drawing, a freer use of English literature, by the contemplation of the lives of eminent teachers, and the enlistment in the work of a high moral and religious nature.

Mr. Boyden thought the special work of the teacher was simply to educate the children under his care, and he or she should therefore be competent to organize the management of the exercises of the school and a proper understanding as to the length and time of this or that branch of education. Then again the teachers should know how to govern those under them. Dr. Leavitt thought there was one grave omission in all their present normal schools, and that was a practical teaching of the way in which the future mechanic, lawyer

or capitalist was going to earn his daily bread.

Several other gentlemen also spoke, concerning in the ideas set forth in Mr. Greenough's paper.

The next paper read was by Gen. S. C. Armstrong, of Hampton, Va., on "Normal Work among the Freedmen," which was a plea for aid from the North in the education of the colored race at the South.

Following this came a well-written paper on "The American Normal School," by Miss Hannah C. Brackett, of St. Louis, Mo., who commenced with a somewhat lengthy plea on the comparative value of male and female teachers in our public schools, giving her vote in favor of the latter.

It was then decided that the discussion on the two papers last read be postponed until to-day, and the session adjourned.

#### DEPARTMENT OF HIGHER INSTRUCTION.

The meeting in this department was called to order by Vice-President D. A. Wallace, President of Monmouth College, who presided. Prayer was offered by Rev. Alex. Blakie, D. D. President Tappan, of Ohio, as Chairman of the Committee on the Programme, made a report that the programme as printed would be varied from in some particulars from the absence of certain speakers announced, limiting the proceedings to reports of committees and the address of Prof. Pickering.

President Wallace followed with his paper on College Degrees. These are designed to be a specific measure of attainment. They are of two kinds, those conferred after examination and those conferred without examination, or honorary degrees.

The special significance of a degree of Bachelor of Arts, for example, should be the same in all colleges. No degree should be conferred on account of family wealth, influence or public favor. To confer a degree for these reasons upon unworthy persons was a wrong to the recipient and to the public, as such a custom had the effect to depreciate the value of such degrees. The degrees of D. D. and LL. D. should be based upon attainments as well defined as the lower degrees. These attainments cannot be ascertained by examination, but can be by other means in a sufficiently satisfactory manner. The policy of some colleges of giving degrees for the reason that the parent of the pupil is a benefactor of the college, or that it is desirable for the reputation of the college that the graduation list should be as long as possible, was deprecated. The plan of examination by college professors also was objectionable as being liable to be lax. As a remedy for the evils of irregularity of conditions upon which degrees are bestowed, it was suggested that each State should establish a Senate of learned men to pass upon the qualifications of candidates for degrees from the several colleges within its borders. The degree itself should be conferred in the usual manner on Commencement Day by the college of which the student is a member, but to give validity to the degree the previous examination of the Senate and its seal and certificate should be essential.

In the discussion that followed the reading, President Eliot, of Harvard University, assented to the leading ideas presented in the paper, but thought that the practical difficulty was that the scheme would operate against the weak colleges, and the weak colleges are always in the majority. The college degrees of this country were justly held in low estimation. He said justly, because there were many institutions authorized to confer degrees, and in one of them, at least, degrees were sold without any examination. The difficulty they had met at Cambridge was to secure proper examiners, outside of the best of college professors. None but practiced teachers make good examiners. There had been some consultation between two of the colleges of this State in regard to the standard of examination for degrees. He suggested, as a temporary remedy for the evils complained of, the German system, which used the name of the college after the letters indicating the degree, as, for example, "LL. D. Berk," meaning the degree of Berlin College.

Considerable discussion ensued, which was opened by Superintendent Harris, of St. Louis, who explained the benefits which the schools in that city had received by making the principals of schools supervisors of the different departments of their own schools, allowing them to teach only one-fifth or one-third of the time, devoting the remainder to supervision.

Mr. Wickersham, of Pennsylvania, followed, and claimed that the system of county supervision began in Pennsylvania, where it was adopted in 1854. This year the State paid at least \$125,000 for school supervision.

Other gentlemen took part in the discussion, which was very interesting.

standards of Western colleges at present to be much in advance of what Harvard was not many years since. When Edward Everett was an undergraduate he studied arithmetic, and he began the study of Greek in college. He believed more in example than legislation, and thought if the leading colleges, such as Harvard, set a high standard in regard to the degrees, the smaller colleges would gradually follow.

Prof. Henkle, of Ohio, suggested that there should be several examinations in each branch of study, and that the average of these, rather than the result of a single examination, should be the criterion.

The large majority of the speakers seemed to approve of the idea of the essay so far as to agree that there was need of a uniform standard of attainment for the granting of the degree, while they did not generally commit themselves in favor of State legislation in the matter.

#### DEPARTMENT OF SUPERINTENDENCE.

About sixty persons assembled in one of the halls of the Normal School building to participate in the exercises of this department. Mr. John Hancock, of Cincinnati, presided, and began the exercises about 3 o'clock by introducing Rev. H. F. Harrington, Superintendent of Schools in New Bedford, who read a very elaborate and interesting paper with the title, "The Extent, Methods and Value of Supervision in a System of Schools." He began by explaining that in accordance with the true spirit of the age he recognized woman as the equal of man in matters of education, and that wherever he used the word man in his paper he did so as a collective noun meaning both sexes. He made the assertion at the outset that the great reason for the wretchedness of many of the schools in the country was the absence of any constant supervision or superintendence. He devoted considerable time to elaborate reasoning to show that the supervision of a single mind was infinitely superior to the supervision of local committees. Among the reasons for the neglect of the schools by the local committees were the facts that they were rarely fitted for the work, and never trained to it and not paid enough to make it any object for them to devote any considerable time to the work. He pointed to great and successful manufactures as examples of what one competent and well paid supervisor can do, and asked what nobler manufacture was to be seen in the world than the common schools, over which there should be a competent superintendent. It was not quantity in supervision which was wanted so much as quality. He recommended as the best system of supervision, first, a State Superintendent of Education; second, county superintendents of schools; third, town and city directors, or school committees, allowing towns and cities to choose superintendents when they so desire. His argument for State supervision was in general one—that all the towns and cities in the Commonwealth were equally interested in the education of all the youth of the State, that ignorance and crime might not curse them alike. He strongly urged the establishment of the office of County Superintendent, which twenty States had already adopted. He had no excuse to offer for Massachusetts' neglect in this regard, and said it was due to the dread of local committees, who feared some loss of their power. The paper of Mr. Harrington was warmly applauded.

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The evening session of the Association was opened by the reading of a paper on "Methods of Moral Instruction in Public Schools," by Dr. A. D. Mayo, of Cincinnati. After being introduced by the President, Mr. White, Mr. Mayo commenced his subject with the statement that the only ground on which the public money could be taken for educational purposes was

#### THE EVENING EXERCISES.

The evening session of the Association was opened by the reading of a paper on "Methods of Moral Instruction in Public Schools," by Dr. A. D. Mayo, of Cincinnati. After being introduced by the President, Mr. White, Mr. Mayo commenced his subject with the statement that the only ground on which the public money could be taken for educational purposes was

the fact that the school was the cornerstone of American citizenship. No right existed to make "scholars" or saints at the public expense, but the main idea was to keep the United States of America out of hell by educating her citizens to take good care of her Government. Less or more than the Christian idea of morality, as laid down in the four gospels, they had no right to attempt. The problem before the common school teacher is how best to hold before the scholar the principle of Christian morality as given above, and the best way to do this was to place in the position of teachers those who would show in their own lives the incarnation of such morality. The position of the school-mistress to-day was worse than that of our grandmothers, who were captured by the Indians and compelled to run the gauntlet or burn at the stake. Providence had opened the door through a social crisis for women in this work, and what more pleasant sight on a beautiful May morning than a sweet young woman revealed to a restless school-room of boys, who might give her their confidence and make her unripe in all their disputes. The boy needed watching, even though he had reached a position in the pulpit, who had never been in love with his school mistress. The secret of the success of object teaching was the charge given, as with a battery, upon the mind of the learner, impressing its lesson in a way at once instructive and pleasant. In regard to governing children in schools, the speaker said that there were but two ways, either by fear or a sense of right aroused in them. The teacher in the schools of the United States should engrave a patriotic spirit upon her scholars, combined with morality. The present condition of our country was described, and said to be drifting our people out to sea, where they would be at the mercy of wind and wave. We were losing a firm hold on Christian morality, and here might be found the reason why half a dozen Western States had been allowed to drift into their careless divorce laws, Utah to support for twenty years a beastly system of polygamy, and New York, teeming with thousands of good people, lie at the mercy of thieves and ruffians. He feared too many young ladies were taking positions as school teachers who were sadly unfit for the place, having for an education less of real knowledge than of fancy learning, totally useless in her chosen vocation. The great text-book of American morals was the Bible, and the only demand an unbeliever could make was that their children should not be compelled to join in the devotional exercises from this book. Its place in the schools was that of any other text-book, and should be used as such, and no American citizen had a right to protest against this use. The speaker believed that some of the best women in our cities and towns should take an interest in the schools, and visit and talk with the teachers, giving advice and aid as they had opportunity. In regard to the co-education of the sexes, he said the school houses where there were boys and girls together were often moral pest-houses, and every teacher knew this to be true. A constant eye was needed to watch the morals of such a school, and this subject was one which should not be neglected. In closing, Dr. Mayo said the best guide to the application of knowledge would be shown by the experience of each teacher. In the hands of those before him he left the care of this tree of knowledge, whose leaves should be for the healing of all nations. The address was listened to throughout with the closest attention.

Mr. White, the President, then introduced President Gregory of the Illinois Industrial University, who said that the lecture on morality just delivered was the most immoral lecture he had ever heard, because it left nothing for discussion, exhausting the whole topic. He could add nothing to the picture presented and would only say a few words upon thoughts of his own on this matter of education. It was impossible to send a child's intellect to school and keep his heart at home, and provision should be made for the education of the one as much as the other. The highest intellectual culture could not be reached without moral instruction. Those who were casting in the school-room the future pillars of the State, on whom the great roof would one day rest, should have a care lest it should pass into history that the great Republic fell because the moulder's were derelict in their duty. The grand purpose of the teacher was to change characters, and to this all other work was subordinate.

Hon. Joseph White, of the State Board of Education, was introduced and made a few remarks. Twenty years ago he had heard the sentiment given in a public place of "The school for intellectual education and the church for moral education," and the great audience present clapped its hands at the words. He had felt at that time a deep depression at this exhibition, believing it to be a dreadful heresy to get into the popular mind. He was rejoiced at the change which had come over the public belief in this regard, and at the able exposition he had heard of this belief to-night. The Bible was the seat of all religion, and must be retained in our schools if success would be attained and continued. The idea seems to be growing that our system of education was a failure, but he considered this very erroneous. Unless America took the stand she should take in educational matters, God would surely select some other nation to carry on the work now committed to her hands.

The meeting then adjourned.

## SECOND DAY.

The Association met in the High School on Wednesday morning. The Rev. Dr.

Wallace, of Illinois, offred a prayer. The following Committee on Resolutions was appointed: Messrs. Z. Richards, of Washington; N. A. Calkins, New York; C. C. Rounds, of Maine; Merwin, of St. Louis; S. N. Carlton, of Connecticut; H. D. Pierce, of New Jersey; D. M. Camp, Connecticut, and A. P. Marble, of Massachusetts.

An invitation from the Massachusetts Institute of Technology to the Association to visit their institution was received and accepted, with thanks. An invitation was also received from the Pennsylvania Educational Association to attend its annual session on the 22d inst.

A Committee on Nominations was appointed.

Dr. J. T. Hoyt reported from the Committee on the Construction of a National University. He said that after much labor the committee had matured a bill, which had been introduced into both houses of Congress, on the 20th May last, by the Chairman of both Commissions of Education. The bill is as follows:

**A BILL to establish a national university.**

Whereas, It is the duty of every Government to secure to its people facilities for the highest culture, no less than the means of elementary education; and

Whereas, It is believed that such facilities cannot otherwise be well provided for the people of this nation as by founding a university so comprehensive in plan as to include every department of learning so high as to embrace the limits of human knowledge, so national in aim as to promote concord among the people of all sections, and so related to other institutions as to promote their efficiency, and with them form a complete system of American education; therefore

*Be it enacted by the Senate and House of Representatives of the United States, That an institution shall be established at the National Capital to be called "The National University of America," where instruction shall be given in the higher branches of all departments of knowledge, and facilities shall be furnished for research and investigation.*

*SEC. 2. That the government of the university shall vest in a board of regents, a council of education and a council of faculties.*

*SEC. 3. That the board of regents shall consist of one member from each State of the United States, to be appointed by the Governor thereof, with the advice and consent of the Chief Justice and the Superintendent of Public Instruction, or other like officer of his State; five members from the country at large, to be appointed by the President of the United States, with the advice and consent of the Chief Justice, Commissioner of Education, and chief officer of the university; and the following members ex officio, to wit, the Chief Justice of the United States, Commissioner of Education, Commissioner of Agriculture, Commissioner of Patents, Superintendent of the Coast Survey, Superintendent of the Naval Observatory, Secretary of the Smithsonian Institution, President of the National Academy of Sciences, President of the National Educational Association, President of the American Association for the Advancement of Science, President of the American Philological Association, President of the American Social Science Association, and the chief officer of the university, fifteen to be a quorum, who, with their associates and successors, are hereby created a body politic and corporate, with the name of "The Regents of the National University of America," and with power, subject to limitations herein-after prescribed, to enact laws for the government of the university; to elect the officers thereof, to determine the general conditions of admission to the university; to confer appropriate degrees, with the rights, privileges and honors attached to similar degrees from any other institution; and, in general, to perform any act not inconsistent herewith or with the Constitution and laws of the United States, which may be necessary to the ends herein proposed.*

*Sec. 4. That at the first meeting of the regents, on the call of the President of the President of the United States, within three months after the passage of this act, all members representing the several States shall be divided as nearly as possible into six equal classes; such division being according to an alphabetical arrangement of the States by them represented. The classes thus formed shall be numbered in the order of such arrangement, and shall retire in such order at the end of one, two, three, four, five and six years respectively; and their successors shall be appointed thereafter for the term of six years. If the governor of any State shall neglect to make such appointment within three months after notice of a vacancy for such State, then the board may fill the same by the election of some suitable citizen thereof. The regents first appointed for the country at large shall retire in the order of their names in the list of appointments at the end of two, four, six, eight and ten years, and their successors thereafter shall be appointed for the term of ten years.*

*Sec. 5. That the council of education shall consist of six regents and six members of the council of faculties, to be chosen by the board of regents and the council of faculties, respectively, for such period as they shall determine, or as shall be fixed in the statutes, together with the following ex-officio members, to wit: The chief officer of the university, Commissioner of Education, Superintendent of the Coast Survey, Superintendent of the National Observatory and Secretary of the Smithsonian Institution, ten of*

whom shall be a quorum. It shall be charged with the organization of faculties, the appointment and removal of professors and teachers, and, in general, with the educational management of the university. But no faculty shall be organized, no chair created, no salary determined, and no professor appointed or removed without the approval of the board of regents; and after the organization of any faculty the instruction to be pursued therein shall be determined with the advice of the professors constituting such faculty.

*Sec. 6. That the council of faculties, embracing the executive officers of the university and all professors shall be charged with the supervision of instruction and discipline in the several faculties, and with the other duties herein named or prescribed in the statutes. The immediate government of each faculty shall be intrusted to its own members. Its chairman shall be chosen by the professors thereof for the term of one year, and shall be responsible for the supervision of its internal affairs.*

*Sec. 7. That there shall be a general council of the university, composed of all members of the board of regents, council of education and council of faculties, and of all graduates of the university of five years' standing. It shall have authority to take into consideration all questions affecting the welfare of the university, and to make recommendations thereon to the board of regents or to either of the councils.*

*Sec. 8. The board of regents and the several councils of the university shall elect their own officers, subject to the limitations herein contained, and may adopt by-laws for the conduct of their own affairs. Each governing body may propose statutes for the university, subject to approval by the board of regents.*

*Sec. 9. That the chief officer of the university shall be a president, chosen by the board of regents, and holding office during their pleasure. He shall be ex-officio president of the board of regents and of each of the councils, shall have general supervision of the university, and shall sign diplomas and confer degrees. There shall also be a vice-president of the university, to assist the president and perform his duties when absent. He shall be appointed by the board of regents on the nomination of the council of faculties, and shall hold his office for two years. The Treasurer of the United States shall be the treasurer of the university. All orders on the treasury shall be signed by the president of the board of regents and countersigned by its secretary.*

*Sec. 10. That in the constitution of the instructional corps of the university, as well as in the nomination and appointment of officers, professors and teachers, such principles shall govern relative to compensation, rank and promotion as in practice shall best encourage merit and promote efficiency.*

*Sec. 11. That among the faculties first organized, there shall be, substantially,*

*First. A faculty of philosophy.*

*Secondly. A faculty of the social and political sciences.*

*Thirdly. A faculty of jurisprudence.*

*Fouthly. A faculty of commerce and finance.*

*Fifthly. A faculty of education.*

*Sixthly. A faculty of letters.*

*Seventhly. A faculty of natural history.*

*Eighthly. A faculty of medicine.*

*Ninthly. A faculty of agriculture.*

*Tenthly. A faculty of mining and metallurgy.*

*Eleventhly. A faculty of applied chemistry.*

*Twelfthly. A faculty of the mathematical and physical sciences.*

*Thirteenthly. A faculty of topographical and hydrographical engineering.*

*Fourteenthly. A faculty of civil and mechanical engineering.*

*Fifteenthly. A faculty of navigation.*

*Sixteenthly. A faculty of architecture.*

*Seventeenthly. A faculty of art.*

*Sec. 12. That no chair for instruction, sectarian in religion or partisan in politics, shall be maintained upon funds derived from the general university endowment;*

*and no sectarian or partisan chair shall be allowed in the appointment of professors to the chairs so endowed and maintained, or in the selection of any officer of the university. But chairs or faculties for instruction in any department of learning, or in the support of any principles of truth, may be endowed by gift, devise or bequest; and the parties endowing the same, or their legally authorized trustees, shall have the privilege, subject to the approval of the board of regents and council of education, of designating the titles thereof, the instruction to which such endowments shall be devoted, and the persons by whom the instruction shall be given. But no amount less than one hundred thousand dollars shall be considered a full endowment for any chair in the university.*

*Sec. 13. That instruction shall at all times be as nearly free for students as is consistent with the income of the university and the best interests of learning.*

*Sec. 14. That admission to courses of instruction, or to the libraries, museums or other auxiliaries of the university shall be granted on conditions prescribed in the statutes; but no person shall be admitted for purposes of regular study and graduation who has not previously received the degree of bachelor of arts, or a degree of equal value, from some institution recognized by the university authorities.*

*Sec. 15. That in order to extend the privileges of the university and improve the collegiate and public instruction of the country, each State and Territory of the United States, in the ratio of population,*

*shall be entitled to scholarships of such number, not less than one for each Representative and Senator in Congress and two for each Senator, as the board of regents shall determine, the candidates for which, being eligible to membership in the university under the provisions of the foregoing section, may be nominated to the board by such Representatives, Delegates and Senators from among the applicants resident in their respective districts, Territories or States, on the recommendation of any institution of learning from which they have received their degrees, respectively.*

*These scholarships shall secure instruction free of charge for tuition during the term of five years, one year to be devoted to general studies in the faculty of philosophy. Each State and Territory shall also be annually entitled to one scholarship securing admission for life to any and all faculties of the university for which the incumbent shall be found qualified under the regulations thereof. The nomination of all candidates for this life-scholarship from any State or Territory shall be by the Governor thereof, on the recommendation of the institutions from which they have received their degrees, respectively; and the award of such scholarship shall be made after an open competitive examination under the direction of the council of education; but the authorities of the university may, for sufficient reasons, withhold the award of any scholarship, or cancel its privileges, or those of any student in the university. There shall likewise be provided scholarships entitling to a partial or a full support for such time, and on such conditions, as shall be determined.*

*Sec. 16. That for the advancement of science and learning by means of researches and investigations, there shall be two classes of fellowships in the university, the first open to the competition of the graduates acquiriting themselves best during their respective courses of study; the other a class of honorary fellowships, open to such learned men, whether American or foreign, as have merited distinction by contributions to knowledge. Such fellowships may be endowed by gift or otherwise, and the persons or States endowing them may, subject to the approval of the board of regents, designate their titles and the research or investigation they shall be used to encourage. The conditions on which fellowships shall be awarded, and the periods for which they may be held, shall be determined in the statutes of the university.*

*At the close of each university year any faculty may name to the board of regents any graduates who have so distinguished themselves as to justify their recommendation for positions in some appropriate branch of the public service.*

*Sec. 17. That as a means of giving practical effect to the foregoing provisions, there is hereby granted to the board of regents the sum of twenty million dollars in a perpetual registered certificate of the United States, to be unassignable, and bearing interest at the rate of five per centum per annum, payable quarterly, in any legitimate tender money of the United States. Such certificate shall be issued by the Secretary of the Treasury, and certified to the treasurer of the university, within three months after the organization of the board of regents under the provisions of this act; and the interest thereon shall be paid on the order of the board of regents, to be used by them in perpetuity for the sole benefit and support of the university. So much as is necessary of the interest first accruing from such certificate may be used for the purchase and improvement of lands for the seat of the university, for the erection of buildings, and for providing the means of illustration and investigation; but in the purchase of lands, and in the construction of buildings, such economy shall be used as is consistent with the paramount interests of education.*

*Sec. 18. That all gifts, devises and bequests, when made for particular purposes, in accordance with the design of the university, and accepted by the regents, shall be applied in exact conformity with the conditions imposed by the trust.*

*Sec. 19. That after the formal opening of the university for instruction, members, under regulations approved by the officers or prescribed by Congress, shall have access to the Congressional Library, to the scientific and other collections of the Patent Office, the General Land Office, the medical departments of the Army and Navy, and the Smithsonian Institution; to the Agricultural Department, with its experimental grounds, botanical gardens and conservatories; to the Naval Observatory; to the Bureaus of the Coast Survey and the Storm Signal Service; to the laboratories and workshops of the Navy and War Departments, to the hospitals under charge of those departments, and to all other collections and opportunities for scientific study under control of the Government, such access to be granted without detriment to the public service.*

*Sec. 20. That at the close of each fiscal year the board of regents shall make a report to Congress, stating the regents and officers then in service, the instructors and students in each faculty, and the property and liabilities of the university, with such other information as shall exhibit its operations, condition and wants; one copy of which shall be transmitted free to all institutions endowed under any act of Congress, and to all other institutions of learning in the United States whose degrees are recognized by this university.*

*Prof. W. F. Phelps, Principal of the First State Normal School of Minnesota, read a paper on "The Normal Training Schools best Adapted to the Wants of our People." His paper was mostly a repetition of the sayings of devoted educational advocates, and contained but little that*

*applied to the subject. When he had concluded President White announced that he had invited a company of singers—the Jubilee Singers, from Nashville, Tenn.—who entertained the meeting with two jubilee songs and the plantation song, "Massa's in de cold, cold ground."*

*Prof. D. B. Hagar, Principal of the State Normal School at Salem, Massachusetts, opened the discussion on the Normal school question. He would favor a school of the highest order to train teachers for colleges and higher schools, and an ordinary school to train teachers for schools of lower grade. It would be better he thought to have a few good teachers than many poor ones.*

*I. Hodson, of Alabama, followed, closing the discussion on the subject, after which John Eaton, Jr., National Commissioner of Education, read a paper on "The Educational Lessons of Statistics."*

[We shall endeavor to publish the above paper in our next issue.]

## THE HIGH SCHOOL.

**AN ADDRESS DELIVERED BEFORE THE STATE TEACHERS' ASSOCIATION BY SUPERINTENDENT ELLIS.**

**S. A. Ellis, Superintendent of Schools of Rochester, read the following paper:**

**LADIES AND GENTLEMEN OF THE ASSOCIATION:** By way of a brief introduction, allow me to say that there is a great deal of ignorance even among those who are not unfriendly to our common schools concerning the place which the high school holds in the system, and many honest doubts are expressed as to whether it should have any place at all in a system maintained at the public expense.

In the hope that I might be able to gather some facts, and present some arguments that would tend to remove the prejudice of all honest doubters and strengthen the friends of the high school, this paper has been prepared. I shall seek and strive to merit your attention, therefore, while I endeavor to present briefly, so far as I have been able to gather them, the facts concerning the establishment and history of high schools, the arguments that have been used to justify their establishment and maintenance at the public expense and the general estimate now put upon them by all friends of education, of sound learning and liberal culture. Allow me to say, in passing, that I shall claim no originality in what I have to say, for it holds true here as elsewhere, in this progressive age, "that there is nothing new under the sun"—as how could there be on a subject which has engaged the thought and attention of the ablest educators of the country? First, then, what is to be understood by a public high school? By a high school is intended a public or common school for the education of the older and more advanced scholars of the community in which the same is located, in a course of study adapted to their age, their intellectual and moral wants, and to some extent to their future pursuits in life. It is common in the same sense in which the district school or any lower grade of school, established and supported under a general law and for the public benefit, is common. It is open to all the children of the community in which it is established, under such regulations as to age, intellectual attainments, &c., as the good of the institution may require or those to whom its management is intrusted may adopt. It embraces in its course of instruction studies which can be more profitably pursued there than in the public schools of a lower grade, which gathers its pupils from a more circumscribed territory, and as profitably as in any private school of the same pretensions.

It makes a good education common, in the highest sense. Common, because it is good enough for the best and cheap enough for the poorest in the community. It would be but a mockery of the idea of such a school if the course of instruction pursued in it were not higher and better than that pursued in the schools of a lower grade, or if it did not meet the wants of the wealthiest and best educated families, or if the course of instruction be liberal and thorough, and at the same time the worthy and talented child of poverty is shut out from its privileges by a high rate of tuition, as was done in the early history of some of our high schools. The school, to be common practically, must be both good and cheap. To be cheap, its support must be provided for, wholly or mainly, out of a fund, or by public tax, and to justify the imposition of a public tax, the advantages of such a school must accrue to the whole community. It must be shown to be of common benefit, a common interest of the whole community, which cannot be secured so well, or at all, except through the medium of taxation.

If I mistake not this is the ideal of a high school, more or less perfectly realized, wherever one has been established. As early as 1835 a public Latin school was instituted in Boston, and an English school in 1831; but then schools, although of a higher order than the common or public schools, provided for the instruction of boys only. The arrangements for a girls' high school were not perfected until the year 1855—so slow were they to believe in the grand future of woman!

In 1835, the first high schools (for boys) was organized in the city of New York, and in 1836 a similar institution was opened for the education of girls. The Central High School of Philadelphia was organized and established in 1833; and during the first ten years of its existence was without a rival in the completeness of its appointments and the extent of its course of instruction; and in 1835 its only competitor was the Free Academy of New

York, which was organized in 1849. Both of these schools, although open and free to all—so it was said—embraced a course of instruction not inferior to that of an ordinary college; and both had the power to confer the usual college degrees. But these schools were for boys only; and in 1856 neither New York nor Philadelphia had made any provision for the higher education of girls. Although these schools differed in several particulars from our present High School, still they were public and in a measure free, and may be considered, doubtless, as the first born of High Schools.

Early in the history of our free schools, those who were pledged to their success began to feel that something was needed to give completeness to the whole system, and to infuse into it that inspiration which is a guarantee of certain success.

In 1850 a committee, consisting of Joseph Penny, D. D., O. C. Comstock, D. D., Matthew Brown, Jr., Levi Ward, Jr., and Heman Norton, appointed by the citizens of Rochester, at a large and enthusiastic meeting, for the purpose of memorializing our State Legislature on the subject of common schools, presented in April of that year a memorial and a plan for their improvement. In their preliminary observations the petitioners say: "While we acknowledge with grateful feelings the wisdom of that policy which dictated and carried into effect our common school system, the extensive benefits of which we do not deny, we, at the same time, believe that a patient and thorough investigation will show that not only evils exist which require speedy remedy, but that the time has arrived when an advance must be made or we shall soon find our system far behind that of some of our sister States and the spirit of the age. We ask you, therefore, to open to the poor and those of limited means 'the highway of knowledge which cannot now be traveled without paying an enormous toll.' We ask you to take measures to elevate the standard of education among the mass of the people; to awaken the whole intellect of the State, and to elicit talent wherever found, whether in the cottage or in the palace." Farther on they say: "We do not expect all men to become philosophers or statesmen, but we hope and expect to increase the general stock of knowledge and hence of happiness." They expressed themselves convinced that the spirit of the age and the interest of the State required that some advance should be made both in the amount and quality of instruction to be enjoyed in our common schools.

Among the improvements in advance, it was suggested that the elements adapted to the purposes of practical life should be taught in our common schools, together with such instruction in other branches as might directly subserve the enlightened discharge of the various civil duties devolving on every citizen of a free State. To secure this end, the Legislature was petitioned to establish in each town a central high school, or higher school of the most approved standard of excellence, so connected with all the others in each town as to exert the most salutary and beneficial influence upon the general interests of education and to aid in the preparation of well qualified teachers.

Again: The high school gives completeness to our educational system. It makes suitable provision for the older and more advanced pupils of both sexes, and admits of the methods of instruction and discipline which cannot profitably be introduced into the lower schools.

The schools established for the instruction of the younger pupils require, largely, the use of oral instruction and a frequent change of position, while the higher branches, especially the higher mathematics, require close application and an amount of mental abstraction, in both study and recitation, which are impossible amid a multiplicity of distracting sounds and movements. The recitations in these studies require time for discussion and explanation, and the undivided attention of the pupil. The course of instruction now pursued in the high school is equal in extent and value to that of any private school or academy—and for obvious reasons must be—from which, before the establishment of the high school, the great mass of children were shut out by the high rate of tuition. The course of study embraces such branches of knowledge, and provides such means of mental discipline, as will fit any young man for business or for college, and give to every young woman a well disciplined mind, high moral aims, gentle and graceful manners, practical views of life, and resources of thought and conversation, which adorn alike the highest and lowest station in life. Again, the high school equalizes the opportunities of a good education, and exerts a happy social influence throughout the entire community. Here the children are gathered from every section of the city, from every condition of life, from different nationalities, to mingle and commingle in the stimulating and subduing atmosphere of the school-room, matching themselves against each other in the friendly race for the highest percentage in deportment and scholarship.

Too much praise cannot be awarded to these noble philanthropists—the representatives at that critical period in the history of our free school system of no inconsiderable number throughout the country, whose prescience enabled them to so far forecast the future, as to lay broad and deep the foundations of that splendid educational system which has been reared upon them. Although the high school as it exists to-day may be regarded as the result of progress and growth, such as characterizes every live institution, and has been modified and altered to meet local views and prejudices; still, in all essential particulars, it is everywhere the fulfillment of that ideal which lay in the minds of its originators nearly a half century ago.

Our free school system was established amid great and continued opposition. But the establishment of the high school, which was grafted upon it at a later period, summoned the opposition to a most violent warfare. "You have no right," they said, "to tax the people, in order to give a college education to paupers." In one locality the cry was, "the

rich are taxed to educate the poor"—while in another, strange as it may appear, it was "the poor are taxed to educate the rich."

Many, who seemed ready to concede the advantages of giving to all free instruction in the ordinary branches—such as arithmetic, geography, grammar, reading, spelling and penmanship—joined the opposition when it was proposed to open free schools, where instruction was to be given in natural philosophy, chemistry, astronomy, geology, botany, physiology, geometry and trigonometry, and the classics; but wherever and whenever the people spoke, it was with such a shout and a yell, verily, as encouraged the hearts of philanthropists and statesmen, and routed or silenced the opposition.

And so our high school, which stands to-day as the flower of our free schools, as the cap-stone of our glorious free school system, has come up through great tribulation.

Out of what convictions has the high school grown? What was the answer the people returned to the cry of the opposition? In other words, for the friends of education have been among the foremost to render a reason for every step taken, what have been and what to-day are the arguments offered to justify the establishment and the support at the public expense of the high school? I have already spoken of the conviction which led to the institution of the high school. It is the evident incompleteness of our system. "It was a body without a head. It was a system of graded schools, with no unit to grade by—no standard to measure with." It was essential to a complete system of education that provision should be made for a thorough course of instruction in the higher as well as in the lower branches of study and discipline. There must be a prize of no ordinary value set before each pupil in the lower schools, in order to stimulate him to persistent and enthusiastic effort. There must needs be a goal and a laurel wreath for the runner in the intellectual race, if all his powers were to be summoned to his help. These were the convictions, if we mistake not. What are the arguments? They may not be new, but they are unanswerable.

First, then, everything that was formerly done in schools of a lower grade, is better done, and in a shorter time, because the teachers are relieved from the necessity of devoting time and attention, which was required by older and more advanced pupils, and can bestow all their time upon preparatory studies and the younger children. A right beginning is thus made in the lower schools, in giving a thorough, practical knowledge of the elementary principles, and in the formation of correct mental and moral habits, which are indispensable to all sound education. All this is done under the additional stimulus of being early and thoroughly prepared for the high school.

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The friendly intercourse begun in the school room, in many cases will continue through life; and then the school becomes a bond of union, a channel of pure and healthy influence to the whole community. Again, it brings within the reach of children of the same age from families of the most diverse circumstances as to wealth, education or occupation, the means of a good education. Side by side in the same recitations, heart and hand in the same sports, pressing forward to the same attainments, are found the children of the rich and the poor. Giving nearly equal opportunities of education in childhood, the prizes of life, in every field of honor and usefulness, will be opened to all, whatever the accidents of birth and fortune. From many an obscure home are being called forth to-day, intellectual power, inventive skill and genius, that will be the source of great benefit to society. By sending forth from year to year those who, instead of becoming burdens, become benefactors, the high

school will eventually lessen the taxes of any community. And now let me add briefly the general estimate of the value of the high school. After what has been already said, I shall not multiply testimony upon this head. It is simply impossible to meet with an annual report of any city superintendent in a locality where a high school has been established, in which you do not find it spoken of as the most valuable addition to our system of graded schools; in fact, as indispensable to their highest usefulness. As early as 1844, the Comptroller of the Public Schools of Philadelphia, in speaking of the high school of that city, said: "The influence of this institution upon the other schools of the city is believed to be worth more than all its cost, independent of the advantages received by its actual pupils." In the annual report of the Superintendent of Schools of Chicago, in 1856, he says: "Although it is now but a few months since the opening of the Chicago high school, it is already exercising a most salutary influence upon every grade of the public schools. While they are putting forth their best efforts for the accomplishment of this object, they become in turn so many examples by which all are stimulated to increased diligence and zeal, and thus a healthy tone of action is given to every part of the system, from the highest to the lowest grades." The State Superintendent of Schools for Ohio says: "The high school is worth more to the schools of a lower grade than all its costs. It arouses the dull and stimulates the indolent by holding out to them admission to its privileges as the sure reward of persevering exertion. It reacts upon the youngest pupils by presenting to them examples for imitation, and an object of hope and honorable ambition. It strengthens, energizes and adorns the whole common school system, inducing a greater degree of thoroughness, better attendance, more exemplary deportment in the schools below. It opens to the poorest child an avenue to the realm of knowledge, not as a charity, but as a right. Its social advantages are great, teaching the child of affluence to take his place upon the true platform of American society and depend for honorable distinction, not upon wealth and social position, but upon the proper cultivation and exercise of those faculties and powers which he possesses in common with his humble, but equally talented, companion. It enlarges the influence, extends the advantages and raises in public estimation the whole common school system. It helps to raise among us a body of well-disciplined teachers, the value of whose work it is impossible to estimate.

Again, while the expenses of the public school are somewhat increased by the establishment of a school of this class, the aggregate expenditure for education, including both public and private schools, is diminished; for, in a community where such a school exists, the private schools must of necessity decrease in numbers; or, if existing, will be improved. Every private school must come up to the standard of the high school or go down. Wherever a high school has been established these two results have inevitably followed—the general expenses for education have been decreased, and the private schools very considerably improved. Finally, the successful establishment of the high school, we are ready to assert, has improved our whole system of common schools, interesting a larger number of families in their prosperity, creating a healthy public sentiment in their favor, while they are regarded as the common property—the common glory of all. The rich, with a few dishonorable exceptions in every community, cheerfully bear the slight additional tax to sustain this school, assured that if their own children do not share in its privileges, the amount is returned to them a hundredfold in the spirit of enterprise which it begets and fosters, in the increased value given to property, and in the number of families which resort to the locality, because of the facilities for education which it offers. I recall an example in point: A town in the southern part of the State, which had acquired a reputation, far and wide, for the excellence of its schools, through some local trouble, had allowed the school to die out. The result might have been foreseen. Family after family among the prominent citizens left in order to secure the privilege of a good school. The value of property declined because there were no purchasers. No sane parent, in choosing a home for his family, would locate where his children could not have the opportunity for securing an education. Finally, it was this conviction that led the business men of the community, many of whom had no children of their own, to establish, largely at their own expense, a school of the first order. The change has been almost magical; and these men to-day, simply as an investment, would quadruple their tax cheerfully rather than have their school abolished. If the majority of the rich take this view of the question, the poor will feel that, whatever privation they may experience, they are born to an inheritance more valuable than gold and silver, homes and lands or shops, in the free access to institutions of learning where by education they may fit themselves for the highest walks of usefulness, and for every position of honor or trust accessible to honorable competition.

And in what balance, it has well been asked in reference to the cost of good public schools, as compared with these advantages, shall we weigh the value of cultivated, intelligent, polished and virtuous citizens? How much would a community be justified in paying for a physician of the highest skill and ability? How much for a just, able and upright judge, who should secure to a community rights more valuable than wealth? How much for a Christian minister, who should become the instrument of saving hundreds from vice and crime, persuading and leading them to a better and truer life? How much for a teacher who inspires with his own lofty aims hundreds of youth, who but for him might have groveled in ignorance all their lives? How much for a pure and noble woman, whose intellectual culture, purified taste and scholarly attainments have made her the centre of all maidenly, wifely and motherly influences that bless not only the circle in which she moves, but reach and penetrate the whole community in which she dwells. But even though any single high school may not produce any one such, it will certainly produce, as it has produced, many intelligent citizens, intelligent wives and daughters, whose influence upon any community for good is worth far more than the cost of their education.

It has produced, and is giving to-day, teachers qualified for their profession, who are destined to shape the successful and happy future of many a fatherless and motherless child, or child of poverty, who, otherwise might have become a curse to society. By sending forth from year to year those who, instead of becoming burdens, become benefactors, the high

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able to relieve our overburdened numbers, by patronizing the private school system, so successful in Rochester, as very many of them have previously done.

And now, gentlemen, allow me to say that if this somewhat immature paper, prepared amid the arduous duties incident to the position of a city superintendent, shall fail of helping one who has listened to it to a juster appreciation of the value of our high school, in the public system, I have to thank those who laid upon me the task of its preparation for the large addition made to my own estimate of its necessity and unquestioned importance; and if heretofore I have had any lingering doubts as to the wisdom and justice of giving to all who seek it a thorough academic education at the public expense, I have none now. And furthermore, I am firmly persuaded that no wiser measure, nor one fraught with greater blessings to our state and nation could be inaugurated than the establishment, by the national government, of a national university, which should offer to all, without regard to sex, and without money and "without price," instruction equal in quality and extent to that now given by the best college in the land. The future of the high school cannot now be written; but I am sure I shall express the hope, if not the belief, of the great body of teachers in this convention, when I say that I trust the time is not far distant when all the common schools of the State shall be graded, and at convenient points high schools shall be established, filled with earnest and ambitious students, whose future career in the nation shall prove an ever-present and unanswerable argument in favor of our high schools and free academies.

#### THE VIRTUES OF THE CHINESE.

It is difficult for us to conceive that mankind, like the various orders of creation, is constructed on the principle of infinite diversity. Nature's constant effort being to avoid repeating herself, whether it be in races or individuals. A letter from the Rev. Dr. Prime to the New York *Observer* recalls some remarkable contrasts between Chinese civilization and ours. The mariner's compass is made to point South, instead of North, by putting the index on the opposite end of the needle; a rider mounts a horse from the off side; instead of blacking shoes, they whitewash them with chalk; the old men fly the kites, while the boys look on.

An American, as an act of hospitality, treats you to a glass of wine. A Chinaman introduces you to his dead grandmother, in her coffin. He shows you his own coffin with as bland profusion as a Frenchman his dogs. To express his pleasure at meeting you, he does not shake your hand, but his own, moving them up and down as if he were pumping out his feelings, and the gush was slow. In cases of small-pox and the itch, this mode of salutation has the highest hygienic qualities. Instead of taking off his hat, on coming into your presence, he takes off his shoes. As a mark of special honor at a feast, he seats you at his left hand, not at his right, and sends your ladies into an interior room, to eat by themselves.

Unmarried women are regarded as of very little account, but mothers always rule their children and their grandchildren, to whatever age they may attain. Here, on the contrary, pretty young girls command all who approach them, and the rule of children over their parents is only less perfect than their sway over the grandparents. Here you ask a father how many children he has, and he answers, perhaps three. In China he would answer, "One child and two girls." Chinese men wear frocks and carry fans, and the women wear pantaloons and smoke. In these respects, however, the two countries are not very unlike. When a man marries, his mother acquires the right to "boss" his wife as well as himself, which is very consoling to both parties. The mother-in-law is consoled by having one more to boss over. The husband is consoled by the feeling that his labor is divided. The daughter-in-law is consoled by knowing that she'll do the same when she becomes a mother-in-law.

In China your dressmaker is a man, if you are a woman, but the person who constructs your hat for you is a woman. The men wear their hair braided, and never cut it, esteeming it, as St. Paul says, "an ornament." The women do theirs up very close, or shingle it short, feeling, as the apostle remarks, that it is a shame to them to wear long hair. A book is read from the left of the page to the right, from the bottom to the top, and beginning with the last page and ending with the first. The written language is not spoken, and the spoken language is not written, so that two persons may be able to understand each other perfectly by writing when neither can comprehend a word the other may say. The detectives sound a tom tom as they go through the streets, to warn rogues and thieves that they are coming.

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NEW YORK, AUGUST 10, 1872

## THE PENNSYLVANIA SCHOOLS.

The report of the Superintendent of Common Schools of the Commonwealth of Pennsylvania, Mr. J. P. Wickensham, is a volume of 416 pages. It includes reports of county superintendents, reports of city and borough superintendents, reports of principals of State normal schools, report of the President of the Agricultural College, statistical reports, etc. The State expended during the year for common schools, \$3,530,918.33, to which may be added \$325,000 for support of the orphan schools, making \$3,855,918.33 in all for school purposes. The increase in the number of school districts is 21, and in the number of schools, 3,230. Philadelphia had 350 school-houses, 1,539 teachers, 134,574 registered pupils, 81,854 pupils belonging to the schools, and school property valued at \$3,815,407. She expended for school purposes during the year, \$1,491,029.58. She paid her male teachers \$137.54 per month, and her female teachers \$43.40—a lower average than is allowed to teachers in New York. Throughout the State the average is only \$41.04 for male teachers, and \$32.86 for female teachers. The Superintendent expresses dissatisfaction at the amount of salaries paid, and hopes for an increase. Regarding the entire exhibit, however, he says: "The growth of our system of common schools, as exhibited by the figures, is truly marvelous. Our good old State, at little more than a single bound, has placed herself among the leading educational States of the Union. Scarcely another State, certainly none of

the older States, can present a record showing such a development within the past six years. And this result has been obtained by evoking the power of the people, for our system of schools is directly dependent upon their will." The State system includes seven Normal Schools—at Millersville, Edinboro, Mansfield, Kutztown, Bloomsburg, West Chester and Lincoln University. The latter is a school for young colored men preparing themselves for teachers. The State has invested a large amount of money in the Agricultural College, and its friends everywhere will be cheered by assurances of its increased usefulness and prosperity. The enlarged labors of the School Department—having general charge, in round numbers, of 900,000 children in the common schools, and 3,600 orphan children, and controlling more or less directly the expenditure of over \$9,000,000 per annum—the Superintendent thinks will soon demand, in a way not to be overlooked, a considerable increase of clerical and supervisory force. He recommends: First, a School Department as now, with a Superintendent at its head, assisted by two deputies; and, second, a division of the Department into (1) a Bureau of Elementary Education, (2) a Bureau of Higher Education, (3) a Bureau of Professional Education, (4) a Bureau of Orphan Schools, and (5) a Bureau of Special Instruction. All that is necessary to effect such an organization is the necessary legislative authority and an addition of three or four officers to the present force. Mr. Wickensham discusses the question of non-attendance with great good sense. He says: "A compulsory law, even if fully enforced, cannot bring into the schools children suffering for want of food, clothing or shelter; children who must work or steal in order to live; children who have no parents or friends to care for them; and a large proportion of those growing up in entire ignorance are of this class." He recommends: 1. A judicious truant law; 2. A judicious law preventing the employment of children in mines, manufactures, &c., without some provision for their education; 3. A law authorizing boards of directors in cities and large towns to appoint and pay, when needed, a school missionary, to visit the parents or children not in school or attending irregularly, and endeavor to secure their attendance; 4. A law legalizing, if not requiring the establishment of a home for friendless or neglected children in every county in the Commonwealth, and gives the boards of directors of the several school districts power to send to these institutions such children as the safety of society might justify being disposed of in that way. The Superintendent also discusses at considerable length the question of higher education, and urges its importance and necessity with great earnestness.

## THE UNIVERSITY CONVOCATION.

The University Convocation, held under the auspices of that rather anomalous if not useless corporation, the Regents of the University, commenced its sessions on Tuesday last. Our own report not having reached us we quote from the daily papers that "Professor Mear discussed, unfavorably, Herbert Spencer's religion. President Barnard, of Columbia College, New York, read a paper on 'Elective Studies in Colleges,' which was discussed by President Samson, Principal Gregory and Professor Jewell. Professor Tayler Lewis read a paper on the 'Moral and the Secular in Education.'

It is perhaps a libel on the gentleman named, as we cannot understand a discussion, favorable or unfavorable, of what is not; and that it is not a subject of discussion is Herbert Spencer's substantial declaration as to "Religion." President Barnard's paper we hope some day to see; but we confess to a puzzle as to the antithesis of "moral" and "secular" education which is made by the reporter the subject of Professor Taylor's paper. We had been under the impression that all education worthy of the name was moral, and whether distinctively religious or not in its means its moral results were the chief ends of education, as distinguished from mere instruction.

Mr. Andrew H. Green, Comptroller of the City of New York, and model Reformer, still retains Mr. Frederick Whittemore as Examiner of Accounts, at a salary of \$35 per day, although Whittemore at the same time holds a lucrative position in the Park Department.

## FOLLY.

The city is engaged in the erection of a very fine set of buildings for the use of the Normal College, and that at a cost of some three or four hundred thousand dollars. The folly of this step lies not in the simple erection of these buildings, but in putting them up on leased land at a ground rental of thirty thousand dollars per year, when the city owns blocks of land, some of which are leased at the nominal cost of one dollar per year. Have the city fathers displayed much wisdom in the management of this item of business?

In answer to the above, clipped from an exchange, it need be said simply that the Commissioners of the Sinking Fund of the city in 1869 donated the ground in question for the uses and purposes of the Department of Public Instruction for the erection of a Normal College, and the ground still remains the property of the city. There is no rental, and the erection of the College largely increases adjoining property owned by the city, and held for it in trust by the Commissioners of the Sinking Fund.

The Legislature also directed the Commissioners of the Sinking Fund to set apart for the uses of the Department of Public Instruction the property known as the Court House site in One Hundred and Twenty-fifth street, Harlem.

The New York Tribune prints, on an average, three hundred separate articles and items daily in praise of Greeley and Brown. The remainder of the paper is composed chiefly of advertisements and articles denunciatory of President Grant.

## The Library.

FIRESIDE SCIENCE; A Series of Popular Scientific Essays upon Subjects connected with Everyday Life. By James R. Nichols, M. D. New York: Hurd & Houghton.

This admirable little volume epitomizes the science of home-life into a nutshell. The author dedicates his work to the family group who by his own fireside "listened to the reading of these essays as they came fresh from the pen," and he explains that it is his aim to make scientific knowledge attractive to the busy men and women of our time. In this effort he has been preceded by Tyndall and Faraday and Agassiz, but none who have till now tilled the field have performed a better service for the general public than Dr. Nichols. Many of the essays comprised in this volume have appeared in the columns of the Boston Journal of Chemistry, during the past four years, but they are now republished in a revised and enlarged form. The subjects treated are the chemistry of a hen's egg, a pint of kerosene, a cigar, the human hair, clothing, the skin and bathing, air-furnaces, and various matters relating to hygiene, the arts, agriculture, &c. The author's style is good, his explanations lucid, and his images frequently of a striking character—for, example, when he observes that "the gorgeous rainbow tints" derivable from the distillation of coal, such as the aniline dyes, "may be regarded as the stored-up sunshine of a past geological epoch." The book is pleasant reading for young old.

The Phrenological Journal for August has portraits of Grant and Wilson, with biographical sketches, and the platform of the American National Convention; also, a portrait and biography of the Hon. George L. Post, of Cayuga County, and the usual agreeable variety of hygienic essays and phrenological disquisitions, including a paper from Dr. Trall on the diseases of the skin.

THE SCIENCE OF HEALTH.—We have received the second number (August) of this new health monthly. Good as the first number was, this is far better; among the contents we would note the first of a series of articles on Popular Physiology; Three Classes of American Girls; Electro-Therapeutics, by A. D. Rockwell, M. D. The Privileges and Penalties of Sex; a practical article on the Use and Care of the Teeth; The Health of Women; Anti-Natal Influences; Way to use Wheat; Hygienic Bathing; Directions for Avoiding and the Cure of Summer Complaints; Sun-stroke; Seasickness; The Bath, and Small-pox; an interesting Department of Agriculture, and Talks with Correspondents.

THE WATCH.—Watch is from a Saxon word signifying to wake. At first the watch was as large as a saucer; it had weights, and was called the pocket-clock. The earliest known use of the modern name occurs in a record of 1542, which mentions that Edward VI. had one larmar or watch of iron, the case being likewise of iron gilt, with two plummets of lead. The first great improvement, the substitution of the spring for weights, was about 1556. The earliest were not coiled, but only straight pieces of steel. Early watches had only one hand, and required winding twice a day. The dials were silver or brass. The cases had no crystals, but opened back and front, and were four or five inches in diameter. A plain watch cost the equivalent of \$1,500 in our currency, and after one was ordered it took a year to make it.

## NEWS FROM THE STARS.

At the last meeting of the Royal Astronomical Society, Dr. Huggins, the eminent spectroscopist, made an extraordinary statement respecting the motions taking place among the stars. The results he announces are so wonderful that it will be brief to explain how they have been obtained, as well as their relation to what had formerly been known upon the subject.

Our readers are doubtless aware that the stars are not really fixed, but are known to be traveling swiftly through space. To ordinary observation the stars seem unmoving; nor indeed can the astronomer recognize any signs of motion save by prolonged observation. But if the exact place of a star be carefully determined at any time, and again many years later, a measurable displacement can be recognized; year after year, and century after century, the motion thus determined proceeds, until at length the star may be removed by a considerable arc (or what is so regarded by astronomers accustomed to deal with the minutest displacements) from the position it had formerly occupied.

But, in general, these movements afford no means of estimating the real rate at

which the stars are traveling through space. In the first place, a star might be moving with enormous rapidity toward or from the earth, and yet seem to be quite fixed on the star-vault—just as the light of a rapidly-approaching or receding train seems to occupy an unchanging position if the train's course is at the moment in the direction of the line of sight. It is only what may be called the thwart-motion of the star that the astronomer can recognize by noting stellar displacements. But even this motion he cannot estimate—in miles per second, say—unless he knows how far off the sun is; and astronomers know in truth very little about stellar distances.

Now it seems, at first sight, altogether hopeless to attempt to measure the rate at which a star is approaching or receding. No change of brightness could be looked for, nor indeed could any observed change be trusted as an evidence of changed distance, since stars are liable to real changes of brilliancy, much as our own sun is liable to be more or less spot-marked. But the distances of the stars are so enormous that no conceivable rate of approach or recession could affect their brilliancy discernibly. Only the most rapid thwart-motion yet recognized would carry a star over a space equal to the moon's seeming diameter in 500 years, so that a corresponding motion of recess or approach would only change a star's distance to about the same relative extent, and it is obvious that such a change could not make a star, even in that long period, change appreciably in brightness.

It will seem, then, utterly incredible that astronomers have learned not merely whether certain stars are receding or approaching, but have actually been enabled to determine respecting this kind of motion what they cannot determine respecting the more obvious thwart-motion, viz., the rate at which the motion takes place.

This is rendered possible by what is known of the nature of light. Light travels through space in waves, not as a direct emanation. Now let us compare a star's action in emitting such waves with some known kind of wave-action, and we shall at once recognize the effects of very rapid motion on the star's part. Conceive a fixed paddle-wheel turning at a uniform rate in water, and that every blade as it reaches the water raises one wave, that wave being transmitted in a given direction. Then there would be a succession of waves separated from each other by a constant distance. But suppose the paddle-wheel itself to be carried in the contrary direction, the wave-wraps would be farther apart than if the wheel had been at rest.

Thus, reverting to the stars, we infer that if a star is approaching, the light which comes to us from it will have its waves closer together than if the star were at rest, and vice versa. Now the distance between the wave-wraps of light signifies a difference of color, the longer waves producing red and orange light; waves of medium length, yellow and green light; and the shorter waves producing blue, indigo and violet light. So that if a star were shining with pure red light, it might by approaching very rapidly be caused to appear yellow, or even blue or indigo, according to the rate of approach; while if a star were shining with pure indigo light, it might by receding very rapidly be caused to appear green or yellow, or even orange or red.

But stars do not shine with pure-colored light, but with a mixture of all the colors of the rainbow; so that the attempt to estimate a star's rate of approach or recession by its color would fail, even though stars moved fast enough to produce color-changes. The spectroscopist has, however, a much more delicate means of dealing with the matter. The rainbow-tinted streak forming a star's spectrum is crossed by known dark lines; and these serve as veritable mile-marks for the spectroscopist. If one of these lines in the spectrum of any star is seen to be shifted toward the red end, the observer knows that the star is receding, and that swiftly; if the shift is toward the violet end, he knows that the star is swiftly approaching.

This result at once illustrates the interesting nature of Dr. Huggins' discoveries, and affords promise of future revelations even more interesting. The theories hitherto accepted respecting the constitution of the stellar universe have been tried against the views recently propounded, with a result decidedly in favor of the latter. We may feel assured that the matter will not rest here. A simple and decisive piece of evidence, such as we have described, will invite many to examine afresh the theories respecting the stellar heavens which have so long been received unquestioningly. The theory of star-drift is associated with others equally novel, and which admit equally well of being put to the test. We venture to predict that before many years have passed there will be recognized in the star depths a variety of constitution and a complexity of arrangement startlingly contrasted with the general uniformity of structure recognized in the teachings at present accepted.

—Spectator.

SIR WALTER SCOTT AND ARCHITECTURE.

No other writer, perhaps, was so alive to the advantage of linking the incidents of his stories with striking scenes and buildings as Scott, and so much use did he make of this, that there are few ancient buildings of importance in Scotland which have not received additional beauty to his poetry by uniting the two indissolubly together; so Scott, while he rescued many a venerable and beautiful monument of ancient art from neglect and sacrifice, gave vividness and additional elements of endurance to his writings by the happy association of interest. In many instances it is apparent that the buildings have suggested the story, but more frequently it is designed so as to include the ruined castle or abbey, whose dim traditions become in the hands of such a magician, living and thrilling realities. Perhaps the best instance of this is to be found in "Marmion." Here, from "Norham's castled steep" in the first stanza, throughout the whole poem, we have a succession of magnificent restorations of some of the finest architectural remains in the south of Scotland. At the name of Scott, the unrivaled description of Melrose Abbey by moonlight will at once arise in the mind. In all probability Melrose Abbey inspired the youthful poet to his first effort in "The Lay of the Last Minstrel," and the internal economy and history of this religious house formed the groundwork of "The Monastery" and "The Abbot." Scott's prose writings are full of careful and beautiful descriptions of architectural works, too numerous even to name—such as the quaint and characteristic enigma of Glasgow Cathedral by the pawsy Andrew Fairfayre: "Ah, it is a brave kirk, name o' your

whigaleers and curlewurles and open-steak hems about it; a' solid, well-jointed mason-work that will stand as long as the world—keep hands and gunpowther off it." Those who know the Northern Salisbury will appreciate this "pithy" sketch of the sturdy yet beautiful cathedral which has alone in Scotland survived the storms of centuries—natural, political, and religious—which have laid all its sisters in the dust. Scott's, indeed, are probably the only works of general literature which an architect can read without shuddering whenever anything architectural is referred to. They can be read not only without pain, but with the highest pleasure and pride; for, it is not something, in an age of indifference to art, to know that such a one as Scott was roused to poetic fire by such beauty as architecture can produce? But more than all this, Scott unconsciously made a great discovery in architecture. He came to feel that art had been, so to speak, a living thing; that of old it had a spirit in unison with the age which gave it birth. Centuries ago its vitality had gone, and men had since substituted the dry bones of defunct art—but tried in our northern island to resuscitate it by servile and pedantic imitation of the art of Greece and Rome. But the great magician, genius-led, pressed through the dark woods of antiquarianism and archaeology, till he came to the "Sleeping Beauty" of Art. He saw and was inspired by the sight; but it was not given even to him to awaken her and lead her forth to a new life in another age. Since his day we all admire, but hold to our helpless plan of imitation. Who shall stretch out the hand of Truth and bring the long lost out again to live and sympathize with us and be loved? Nothing can be finer than to observe how, in the description of Melrose in "The Lay of the Last Minstrel," Scott dignifies the puerile notions of Sir James Hall as to the origin of Gothic architecture:

"And the pillars, with clustered shafts so trim  
With base and capital flourished around,  
Second bundles of bances which garlands bad  
bound."

The moon on the east oriel alone  
Through slender slants of shapely stone,  
By foliated tracery combined;  
Twixt poplars straight the osier wands,  
Many a fresh knot had twined,  
Then framed a spell when the work was done,  
And changed the willow wreaths to stone."

Would that some Roman bard had thus consigned the somewhat similar ideas of Vitruvius on the origin of "the orders" to a glorious and harmless immortality.

It must, however, be borne in mind that Scott was no architect; he had only the appreciative, not the creative, power as regards art. Following his own taste in these matters, he built at Abbotsford a mansion which was to embody the features of the most interesting buildings in Scotland. It resulted in something as unlike the baronial mansions of old as the verses of his imitators were unlike his own. It is pitiful to think that such a piece of work helped to no small extent to involve him in the pecuniary difficulties which threw a shadow over the latter portion of his life. Yet in this attempt at architecture Scott paved the way to the revival of a national style, founded on the latter baronial examples, a style which, modernized and adapted to the requirements of every-day life, is becoming in Scotland a living architecture more truly characteristic of the country and in harmony with its scenery, more adaptable for every purpose of modern life, more true and possibly more beautiful than any of the countless styles and varieties which pass for architecture now-a-days.—Architect.

#### THE DESIRE FOR LONG LIFE.

The best evidence that people think it desirable to live long, is to be found in the exertions that have been made in all ages to accomplish this end. The Egyptians supposed life could be lengthened by the free use of sudorifics and emetics. They tried to "keep the pores open," as the old women—professional and non-professional—say. Two emetics per month were considered the proper thing in Egypt. If classic poets are to be credited, Medea, a philosophic young lady, much given to chemical experiments, rejuvenated her father-in-law, Jason, and, we presume, prolonged his life by a very free venesection, followed by the injection of certain vegetable juices into his veins. Very probably this was the origin of the regimen favored by some medical men—not yet dead—who used to recommend a bleeding every spring, followed by a course of bitters to purify the system. The alchemists were all earnest seekers after some *elixir vire*—some magic potion which should preserve youth and vigor forever. None succeeded, judging from the fact that they all died themselves; but some of them imagined they had discovered what would prolong if not perpetuate life. Friar Bacon compounded a nostrum of gold, coral, vipers, rosemary, aloes, the bone of a stag's heart, and certain other mysterious ingredients. Arnould de Villa, a French physician, proposed to feed the seeker after long life on pellets fattened on vipers, which, after being whipped to death, were to have their heads and tails cut off, and be stewed in a mixture of rosemary and fennel. This formed the *pice de resistance* of the feast; the *entremets* were composed of emeralds, rubies and other precious stones dissolved. There would not be much objection to the latter article; but most people would prefer them raw rather than cooked.

Command us, however, to the prescription of Claudio Hermippus, who taught a school of girls in Rome, and died at the age of 115, having thus prolonged his life, in his own opinion, by "exposing himself daily to the breath of innocent young maidens." The remedy may not be upspec-

sant, even if it should not succeed as well in this nineteenth century as in the days of the Roman dominie.

Hippocrates, the leading physician of his day, long ago—died at 100, tradition says—advised pure air, cleanliness, moderation in all things, exercise and a daily friction of the clay. It does not appear that modern doctors are able to improve on his prescription, and they generally content themselves with following the divine old man of Cos. Cases are found, however, which show long life to be quite compatible with the absence of these conditions.

The female sex seems to have somewhat the advantage of the male in the average duration of life, though there are more instances of extreme longevity among the latter than the former. It is said, but we really are not sure about it, that matrimony is conducive to long life. Hufeland gives a solemn warning to bachelors. He says, "There is not one instance of a bachelor having attained a great age." Now, while it may be, that by a wise dispensation of Providence these comparatively useless members of the social world die off sooner than their brethren who have conjugated, yet the assertion of the Prussian authority is altogether too sweeping. Kant lived to 80, Swedenborg to 84, Alexander von Humboldt to 90, Hobbes to 91; besides many other single gentlemen who reached a most venerable age. But Hufeland was evidently prejudiced in favor of matrimony, for he says further, "All people who have been very old were married more than once;" and he instances the case of one De Longueville who attained the age of 110, and had ten wives, the last in his 99th year! Poor man! to be thus untimely cut off in the midst of a career of usefulness! But perhaps if he had not been so matrimonially inclined, he might have lived much longer.—*Canadian Monthly.*

#### WEAK BACKS AND BAD SEATS.

The small of the back is the weak or strong point of every person. It is the centre of voluntary motion. Nearly three hundred muscles are directly or indirectly connected with the motions of which the small of the back is the pivotal centre. Hence, while those who are strong, and whose muscular systems are well balanced, know nothing of spiral weakness or vertebral distortion, invalids are forever complaining of this part of the body.

One very prominent cause of weak backs and crooked spines is the unhygienic, un-anatomical seats and benches of our school-houses, churches and halls; nor are the seats and benches provided on steamboats, railroad cars, or at stations or ferry houses any better. It is impossible for any person to occupy these seats long without being forced out of shape. And when school children are confined to them for several hours a day for months and years, their backs will inevitably be more or less weakened, with corresponding deformity of body, for life.

If we go into private families, even into the palaces of the opulent, we find the seats made more for show than for use. Girls suffer much more by using such seats than boys; for the reason that boys are taught to run, jump and exercise themselves all over and all through, while girls are expected to keep still and be pretty.

It is certainly one of the strange problems of the nineteenth century that no parent, teacher or mechanic will give any attention to anatomy or physiology in the construction of seats for the human body.

Must our chairs, and sofas, and settees, and divans, and *tete-a-tetes*, and pews forever be dictated by fashion, and never conformed to nature? Must our tortured bodies forever be compelled to shape themselves to the seats, instead of the seats being adapted to our bodies? Go through all the great chair factories of the country, and you will not find a single article that is not put together in gross violation of the rules of health or comfort. If some Cooper, or Peabody, or Stewart, or Vanderbilt, or Astor would invest a little million of dollars in establishing an immense chair factory "on strictly hygienic principles," he would do more to improve human health, promote longevity and remedy the backache than any medical college in the land.—From "Backache," in *Science of Health*.

**EXCELLENT INTEREST RULER.**—Finding the interest on any principal for any number of days. The answer in each case being in cents, separate the two right hand figures of the answer to express it in dollars and cents.

Four per cent.—Multiply the principal by the number of days to run; separate right hand figure from product and divide by 9.

Five per cent.—Multiply by number of days and divide by 72.

Six per cent.—Multiply by number of days; separate right hand figure, and divide by 6.

Eight per cent.—Multiply by number of days and divide by 45.

Nine per cent.—Multiply by number of days; separate right hand figure and divide by 4.

Ten per cent.—Multiply by number of days and divide by 36.

Twelve per cent.—Multiply by number of days; separate right hand figure and divide by 3.

Fifteen per cent.—Multiply by number of days and divide by 24.

Eighteen per cent.—Multiply by number of days; separate right hand figure and divide by 2.

Twenty per cent.—Multiply by number of days and divide by 18.

Twenty-four per cent.—Multiply by number of days and divide by 15.

Water thrown into a red-hot metallic vessel does not boil, as we should expect, but quietly gathers itself together, forming a more or less perfect sphere, and in that condition floats about gracefully on the hot surface as it slowly evaporates away. If at the same time a very evaporable substance, as liquid sulphurous acid, is thrown in, the water may actually be frozen in the red-hot vessel.

Water boiled in a glass flask until the upper part of the vessel is entirely filled with steam, and then dextero is corked before air can gain admission and placed in cold water, recomposes to boil. The boiling is produced by cold instead of heat, and the experiment is known as the culinary paradox.

If steam from water boiling at 212 deg. is passed into a solution of a salt in water, the temperature of the salt solution steadily rises, passing 212 deg., reaches the boiling point of the solution, and finally the latter also boils at a temperature as high and even higher than 212 deg., according to its nature. There we have the extraordinary result of obtaining a higher temperature, say 250 deg., from a lower one, viz., 212 deg.

If there is anything in nature that possesses a positive character it is light. Yet the physicist may so reflect the light from a given source as to cause it to destroy itself and produce darkness. In like manner two sounds may be made to interfere with each other and either produce silence or increased intensity of sound, at the will of the operator.

**HOW PENCIL LEADS ARE MADE.**—Graphite, clay and water are the materials used. The finest graphite, after being finely ground, is mixed with a peculiar blue clay, found only in Bavaria, and the whole kneaded with water to the consistency of putty. This mass is placed in a strong cylindrical iron vessel, in the bottom of which is a hole of the diameter of the lead desired. A plunger forces the mixture out through this small opening, which is received on metallic sheets, which, when filled, are placed in an oven for baking. The softness or hardness of the pencil depends upon the degree of hardness to which the baking is carried. The leads are afterward broken up into the sizes required. Nine different sizes of leads are made, and numbered from 1 to 9. The trade is mostly supplied from manufacturers in Philadelphia.

**A MASSIVE TELESCOPE.**—Mr. Clark, at Cambridgeport, is making the largest reflecting telescope in the United States for the naval observatory in Washington. It has an object glass 26 inches in diameter, being eleven inches larger than the one at Harvard College, and when finished is worth \$23,000. The two glasses—it requires two to make an object glass—weighed in rough 250 pounds, and cost \$7,000. They arrived in this country about six months ago from Birmingham, England, and ever since the work of polishing and repairing them has continued unremittingly. Over 50 pounds have been cut from the flat glass, which now weighs 110 pounds, and the other when finished will weigh about 73 pounds. The total cost of the instrument will be \$46,000.

#### GENERAL INFORMATION.

**THE TANGLED, RIGID, NON-ELASTIC LOCKSTITCH.**—is altogether ill-adapted for family sewing, and the complicated and cumbersome machinery required to construct that stitch makes sewing difficult, and to delicate persons positively injurious. On the other hand, the mechanical perfection of the Wilcox & Gibbs Silent Family Sewing Machine is such that, while the seam is the most elastic and secure known, the most delicate people may earn a livelihood by it, if necessary, with positive benefit to health.

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"SNOWDROP."

## AUNT TABITHA.

Whatever I do and whatever I say,  
Aunt Tabitha tells me that isn't the way;  
When she was a girl (notty summers ago)  
Aunt Tabitha tells me they never did so.

Dear aunt! if I only would take her advice!  
But I like my own way, and I find it so nice!  
And besides, I forget half the things I am told;  
But they all will come back to me—when I am old.

If a youth passes by, it may happen, no doubt,  
He may chance to look in as I chance to look out;  
She would never endure an imperious stare,  
It is horrid, she says, and I mustn't sit there.

A walk in the moonlight has pleasures, I own,  
But it isn't quite safe to be walking alone;  
So I always go with you just to be safe, you know—  
Aunt Tabitha tells me they didn't do so.

How wicked we are, and how good they were then!  
They kept at arm's length those detestable men;  
What an era of virtue she lived in!—But stay—  
Were the men all such rogues as aunt Tabitha's day?

If the men were so wicked, I'll ask my mama;  
How he dared to propose to my darling mamma;  
Was he like the rest of them? Goodness! Who knows?  
And what should I say, if a wretch should propose?

I am thinking if aunt knew so little of sin,  
What a wonder aunt Tabitha's aunt must have been!  
And her grand-aunt—it scared me—how shockingly sad  
That we girls of to-day are so frightfully bad!

A martyr will save us, and nothing else can;  
Let us pray—to rescue some wretched young man!  
Though when to the altar a victim I go,  
Aunt Tabitha'll tell me she never did so!

O. W. HOLMES.

## HETTY; A SEASIDE STORY.

BY CAROLINE M. HEWINS.

Hetty Crowell lived on the beach with her grandfather. Her father was killed at Antietam, and her mother died the next year, so that she was all alone in the world. The old man took his little granddaughter home, and tried to do the best that he could for her. Until she was ten years old, her mother's sister Prue kept the house, but at last she was married, and Hetty had to get along without her. The housekeeping was simple enough, for there were only three rooms in the little cottage, two on the ground floor and one above, and by the time the little girl was twelve she could keep everything in order. Her grandfather cooked, for he was an old sailor, and once a fortnight Mrs. Baker, who lived on the road that led from the beach to the village, came to do a day's washing and mending. For the rest, Aunt Prue took care of Hetty's clothes, and very simple ones they were, when the child went twice a year to see her.

Hetty was left alone a great deal, for her grandfather, though sixty years old, was strong and hearty, and quite able to go mossing all summer. You don't know what mossing is, perhaps? It is going out to collect Carragheen moss, of which blanmange and sea-moss farine are made. The moss that is thrown up on the shore is not the best and freshest. That grows on the rocks which are so far under water that they cannot be reached except at low tide, and then only by a rake with a handle about nine feet long. The rake has long, sharp, steel teeth and comes up full of moss. The men who gather it go out just before low tide, in sail boats, and work for two or three hours, then sail back, take the moss to shore in a skiff, wash it, spread it on the beach to dry and store it in barrels.

This was John Crowell's business in summer. In winter he sat all day in a little shop behind Mrs. Davis' boarding-house and made shoes with her husband and half a dozen other men. Meanwhile, Hetty went to school up the road, past Mrs. Baker's to the little school house near the corner where the guide-board said,

"To the beach, one mile."

Hetty liked to go out with her grandfather whenever he would take her. She was too old now to care much about playing barefoot in the tide-pools, with the Davis children, but she liked to sit at the bow of the sail-boats while her grandfather raked moss, and rock up and down on the tossing water. She liked, too, to see the queer little white star-fishes and sea-urchins that came up sometimes with the moss, and to help haul in her grandfather's lobster-pots. She knew how to steer a little, too, and how to bait the net for perch. Altogether, she had a happy life. In winter, she could not go out sailing, but she could walk on the beach and watch the waves, or, when it stormed she could sit at the window after school, and read the weekly paper that her grandfather took, or the two or three story-books that she owned.

One afternoon in July, her grandfather said: "Hetty, I've got to go to the Harbor for a rake. You won't be afraid o' stayin' alone, will ye? You see, it's a good five miles, and I ain't so spry as I used to be, so I guess I'll stay at Tim's over night, and he'll bring me round in the mornin'."

"All right, grandpa," answered Hetty, "I ain't afraid," and she bustled about to get tea.

Before long, the tea was ready, and in an hour she was alone in the house. She had a geography lesson to learn, and by the time that she had finished it, the sun was just setting. The day had been close and hot, with a land-breeze, and Hetty thought that she should like to sit on Well Rock a while. This rock ran out into the water about half a mile from the house. It was steep and high, but not hard to climb for those who knew the way. In the middle was a deep cleft into which the water dashed furiously when the tide was up, and which gave the rock its name. Usually, there were groups of summer visitors from the boarding-house, and fishermen and their families, scattered all over the rock, singing and talking, but on this night

there was a circus in the village, and everybody had gone to it, so that Hetty was alone.

She wrapped herself in her waterproof, threw the hood over her head, spread a shawl on the rock, leaned her head back, and looked out to sea. The tide was slowly coming in, and she watched it creeping up into the little shallows and over the stones below the great rock on which she sat. At her left shone the great light at the Ledge, three miles away. A few sails were scattered about in the horizon, and she watched with a lazy feeling of wonder as to where they were going. Then she shut her eyes, and before she knew it was fast asleep.

She did not wake for a long time. At last, she sat upright and rubbed her eyes, trying to make out where she was. All at once, the thought flashed over her that she was not in her little bed in the garret at home, but alone on the rock.

"What time is it?" she said, half aloud. A glance at the moon answered that question. She knew that it would not rise until twelve o'clock, and it was already an hour high. The tide was in, too, for it was dashing and echoing in the deep well beside her, and she knew that going home was out of the question, for when it was high it swept all around Well Rock, and made a little island of it for an hour or two.

Hetty felt cold, and wrapped her shawl about her. She was a brave little girl, and thought that the best, and indeed the only thing for her to do, was to wait till morning, and then go home. She closed her eyes, and said to herself the little verse that her mother had taught her, "Now I lay me down to sleep," and the rest. Now I lay me down to sleep, and the rest. Before long, she was fast asleep again.

When she awoke she heard voices at her side. One said, "Why Jim, if here ain't a gal!" Hetty started up, and looked at the two men. "It's Hetty Crowell," the other one answered. "How did ye git here, child?" They were Micah Davis and his son, whose boat was fastened at the foot of the rock.

"I came out here last night," answered Hetty. "Grandpa's gone to Uncle Tim's, and I got asleep 'fore I knew it." "Wal," said Tim, "you can't git off the rock yet unless I carry you." The early dawn was just flushing the east, and the tide had begun to go out. Jim, in his long fishing boots, strode through the water with the little girl in his arms. She ran up the beach, when he left her, feeling as if she had done a very foolish thing, and expecting to find the house on fire, or that something dreadful would happen to punish her for her carelessness.

All was quiet in the house. Pink in the kitchen, rose from her place in front of the cooking stove, and rubbed against her little mistress, who threw herself on her bed and had a few, broken naps before getting-up time.

Micah Davis told the story of Hetty's adventure to his wife, who told her boarders all about it. Immediately, half a dozen girls, from Hetty's age upward, were seized with a desire to spend a night on Well Rock, and in a day or two, Hetty was besieged with visits from them, and questions as to how it felt, and what she saw, and what she thought when she awoke. All she could say was, "I didn't think much about it, I was so sleepy."

The adventurous girls thought that if she were not frightened they should not be, and they therefore took shawls and blankets enough for twenty, a big dog and a basket of provisions to the rock. They laughed and sang and chattered and ate until the lady who matronized them was almost out of patience. They were too excited to sleep, and in an hour or two were tired of watching the waves. Then they were cold and cross, and would have been glad to go back to the house if the tide would have let them. Altogether they were not pleased with the experiment.

On their way back they met John Crowell on the beach.

"Good mornin'," said he. "My little gal told me you was a goin' to stay on the rock last night. Did it feel good?"

"Oh, Mr. Crowell," answered one of the girls, "it was horrid. We didn't sleep a wink all night."

"Why," asked he, "you ain't afraid, be ye?" But I guess I wouldn't try it agin', 'thout I was sure o' sleepin' pretty well. Now Hetty, she didn't mind it no more'n if she'd ben to home, 'cause you see, she knowned nothin' would hurt her. But somehow I don't b'lieve in runnin' into these things 'bout you're obligeed to, or can do somebody some good by 'em."

With which advice, he took up his oars and went to his skiff. The girls thought that it would be best for them to cultivate a little of Hetty's simple trust and fearlessness before they tried to spend another night on the rock.—*Student and Schoolmate.*

**A BIT OF ASTRONOMY.**

I suspect that not one child in fifty, under twelve years of age, could tell me exactly how any one knows that the moon is really larger than a soup plate, or whether it is as far or farther away than Boston.

Now don't shrug your pretty shoulders, and laugh, and say I must be crazy to think you don't know that. It is not so easy a matter to know many things just right; and I hope you will not say one boastful word about your knowledge of the subject, until you have thought it over carefully, and seen how much you really know certainly. Wise men are very cautious indeed, and know what they say and the reason for it.

No one ever comes from the moon country, to give us descriptions of it, and one has a great deal of trouble in studying it since he cannot go there. The "man in the moon" is not at all social, either in his ways as you know, and I never heard of any one getting any sort of information out of his ugly mouth. We have to learn things the best way we can, all by ourselves, one thing at a time, and often a very long time.

I will tell you to-day about the size of the moon, and how men are able to find out exactly what its size is.

The moon is a globe, whose diameter is two thousand miles; about one-fourth of that of the earth.

"Now how" do you ask, "can one know that?"

There is a method something like this: Let us take, for example, a cent piece, which measures about an inch in diameter, and let it be placed between the eye and the moon, at any distance from the eye. It will be found on the first trial, that the coin will appear larger than the moon; it will, in fact, completely conceal the moon from the eye, and produce what we may call a total eclipse of the moon. Let the coin be moved farther from the eye, and it will then appear smaller, and will seem to grow less in size as its distance from the eye is increased. Let it be removed until it seems exactly to cover the moon, and neither more nor less.

If the distance from the coin to the eye be measured, it will be found to be about ten feet, or one hundred and twenty inches, or, what is the same two hundred and forty-half inches. But it is known (and the way in which that also is known, I will explain to you at another time,) that the distance of the moon from the earth is about two hundred and forty thousand miles; so that it follows in this case that one thousand miles in the moon's distance is exactly what half an inch is in the coin's distance.

Now you all understand I suppose, how, in geography, you measure a country on a map, when you know the scale of the map; if, for instance, you have the map of Illinois before you, made on a scale of fifty miles to an inch, and find by measuring, that there are about two inches of the map from Chicago westward to the limits of the state, you would at once be able to say that the real distance between those points must be about two times fifty, or about one hundred miles.

Now, in the case of measuring the distance across the moon's disk with the coin, we have found the scale to be half an inch to one thousand miles; since, then, the coin measures two half inches in diameter, the moon must measure two times one thousand miles, or two thousand miles in diameter.—*A. E. Lander.*

## OUR WEEKLY CHAT.

The boys and girls are actually getting a little drowsy, and the post-man has no paid us as many calls lately as he is usually wont to do. Should this deficit in the number of letters forwarded continue, the Post Office Department will suffer, and the Government will have to make an extra appropriation to defray the expense of carrying the mails. We are sure the patriotic young folks who join in our "Chat" will not allow this to take place, so long as they can so easily prevent it, namely, by sending us their usual number of letters.

Send on the communications, answers, puzzles, poetry, etc., boys and girls, and you will oblige us, the business of the Post Office will be renewed, and you will remove a burden from Uncle Sam's mind with regard to that extra appropriation; at the same time that many of you will have the pleasure of seeing your contributions printed in the "Boys' and Girls' Department."

A. S. Bush's problem was duly inspected; we think it must be stated incorrectly, as the answer results in a large fraction besides the whole number of acres. The answer he sends to the problem in last week's JOURNAL is correct. As a rule we do not insert puzzles or problems in our "Gymnastics," unless we can present the answers two weeks after. In the case of very good contributions, however, we make an exception. We should like to receive some good problems from our readers, both old and young.—The poem by "A Reader" was received. The hero (as regards those mosquitoes), as well as the poetry, are just a little too "striking" for the young folks to appreciate. "Reader" will have to try again; his contribution is declined with thanks.—The acrostic by Peter Cook, Jr., is received and accepted. As a new puzzler we welcome Master Cook to our circle of boys and girls.—Stella A. Barnaby's last letter was received, as well as the one with regard to the receipt of which she was in doubt. The papers she desired have been mailed to her, and if she fails to get them she will oblige by informing us.—C. H. D.'s puzzle is declined. The only objection to it is that we doubt if any of our puzzlers, old or young, would succeed in solving it.—John R. Sever's "first attempt" at poetry is so good that we must accept it. With regard to his enigmatic double acrostic, it is capital, but would occupy too much space should we insert it; however, we shall make use of the acrostical portion, leaving out the enigma. It is really refreshing to look at Master Sever's neat penmanship, after reading some of the almost indistinct scrawling of a few (we will not say many) of the boys.—Frank A. Murtha sends us the solution to puzzles Nos. 6, 9 and 10, in JOURNAL No. 70. His answers are all correct.—"Dewdrop" sends the answers to Nos. 2, 4, 5, 6 and part of No. 8, all in the JOURNAL of last week. He also incloses several good

puzzles which we stow away in our accepted drawer.—Ella W. H.'s cross-word enigma appears in this week's "Gymnastics."—Marion" declined; too easy.

## GYMNASICS FOR THE BRAIN.

## NO. 1.—PUZZLE.

(Three words are to be selected, one from each of the quotations, and these will form a proverb.)

"Appearances to save his only care;  
So things seem right, no matter what they are."

"Ill habits often gather by unseen degrees,  
As brooks make rivers, rivers run to seas."  
"O what a tangled web we weave,  
When first we practice to deceive."

## SNOWDROP.

## NO. 2.—CHARADE.

My first is seen both in mansion and cot;  
In the midst of your home, too, I'm found;

And if you shall any day happen to fall,  
You will utter my name, I'll be bound.

My second is used by most civilized men;  
It can soothe, it can also give pain;

It's but a small object, and yet you'll find  
It has helped many people to fame.

If traveling alone on a dark stormy night,  
You would think yourself sadly ill-used

If you knocked at a door, and to do my whole

The inmates unkindly refused.

T. P. R.

## NO. 3.—ARITHMETICAL PROBLEM.

A number is expressed by three figures, and the sum of these figures is eight. The figure in the place of units is five times that in the place of hundreds; and when 396 is added to the number, the sum obtained is expressed by the figures of the number reversed. Required the number.

EMIL ARNOLD.

## NO. 4.—HIDDEN CITIES.

1. The new portfolio is a splendid invention.  
2. Count Blyth de Parker has committed suicide.  
3. The people of Ceylon do not like the Americans.  
4. The regiment under Gen. Frank fortified the city.  
5. I saw Henry on Kersley's barn.  
6. Mary has an Astrakan sash.

EPH. RAIM.

## NO. 5.—DOUBLE ACROSTIC.

1. A kind of fish. 2. A river in Europe.  
3. A girl's nick-name. 4. A fertile spot in a barren waste. 5. A very useful article for windows. 6. A people overcome by Caesar. 7. A girl's name.

The initials name a European city; the finals the country in which it is situated.

PETER COOKE, JR.

## NO. 6.—LOGOPHRASES.

1. Entire, I have great power; behead me and I am very useful to conveyances; curtail me and I am a drink; transpose, you do it every meal; restore and transpose and get something for sale at the market.

FRANK A. MURTHA.

2. Whole, I am a President of the United States; beheaded, I am a noisy language; beheaded again, I am a little insect; transposed, I am a boy's name; beheaded again, I am a preposition.

H. S.

## NO. 7.—CROSS WORD ENIGMA.

My first is in bonnet but not in hood;  
My second is in river but not in wood;  
My third is in scissors but not in knife;  
My fourth is in death but not in life;  
My fifth is in strength but not in force;  
My sixth is in road but not in course;  
My seventh is in strange but not in queer;  
My eighth is in dry but not in ear;  
My whole comes only once a year.

ELLA W. HALE.

## NO. 8.—DIAMOND PUZZLE.

1. A consonant. 2. A stick. 3. A defile. 4. A criminal. 5. Power. 6. A law. 7. A consonant.

GEORGE A. PERLEY.

## NO. 9.—LETTER PUZZLE.

Four O's, two N's, an H and a V;  
Two S's, two L's, an I and a P;  
A T, a B, a C, a Y and three D's,  
Two R's, an A, a U, a K and five E's,  
A motto for every boy and girl to take.

These letters, when placed in order will make.

SNOWDROP.

Answers to "Gymnastics" in JOURNAL.

No. 79:  
No. 1.—Pass-port.  
No. 2.—N spies

A diaric  
A spal

O lymphus

L eghorn

E tna

O stium

N gami

No. 3.—Samson, sale, Sal. 2. Part, par.

pa. 3. Learn, leat, lea. 4. Wither, willie, with, wit.

No. 4.—Siren.

No. 5.—

D E E

N E L L Y

S E L E N I C

T E L E G R A P H

H Y D R A T E

P R A T E

O P E

H

No. 6.—Bread, dead, dear, ear.

No. 7.—Jessamine; 2, Rosemary; 3,

Myrtle; 4, Sweetbriar; 5, Lavender; 6,

Hysop.

No. 8.—1, Apricot; 2, Orange; 3, Cur-

rant; 4, Melon; 5, Pear.

No. 9.—Ruler.

No. 10.—1, Nelson; 2, Newton; 3, Gal-

lileo; 4, Dickens; 5, Spenser.

NAPOLEON'S PLAYTHINGS.—The playthings put into the hands of a child are for a time his chief companions; they suggest ideas to him that long cling to and sometimes affect his tastes for life. The first plaything ever given to Napoleon Bonaparte was the model of a brass cannon. We cannot say how much that little plaything had to do with the future course of the great military chief, but we know that when a long course of success had crowned his plans, he often said: "My course has been that of a cannon-ball, and woe to those who stood in my way."

—What are the colors of the wind and a storm? The wind, blue—the storm, rose.

—"What are you doing?" said a father to his son, who was tinkering an old watch. "Improving my time, sir."

—Dew is an invisible vapor, which, chilled by the cool surface of the flowers, bursts into tears over the beauty that must stand.

—Why is it easy to burst into an old man's house? Because his gait (gate) is broken and his locks are few.

—When is a sample enough? When you take away the s; it is then ample.

—Handcuffs are like guide-books, because they are made for two wrists (tourists).

**Vox Populi.**

**Mr. EDITOR:** Permit me to say that the apt speech of the Hon. Henry Clark, of Rutland, Vt., which he made at the last meeting of the New York State Teachers' Association at Saratoga, gave great pleasure to many of the members of the Association, especially to those who were aware that Mr. Clark exerted himself intensely to prevent the coming of Dr. J. H. French, "or any other man" from another State, to superintend the public instruction in Vermont.

Senator Clark said that under the superintendency of Dr. French, the last three years, Vermont had advanced twenty-five years in her educational interests. Now that the driving Senator and the Dr. have thus publicly declared for the advancement of Vermont—the Dr. also made a determined speech—we may expect to hear of still greater advancement next year.

H. J. R.

**Crumbs for the Curious.**

The microscope was discovered by Janssen, in 1619.

There is a town out West called Random. A resident of the place being asked where he lived, said he lived at Random. He was taken up as a vagrant.

A German lately married says: "It was just so easy as a needle could wick out mit a camel's eye, as to get her behindit witt a voomans."

Costumes suited to the season—bathing dresses.

## FROM THE CHINESE.

Who would enter honor's door  
Must possess the Graces four;  
For his mind must hold a store  
Out of ancient classic lore;  
For his body he must know  
How to manage horse and bow;  
For his fancy he must tread  
River's bank and mountain's head;  
For his temper, must repeat  
Poet's songs with music sweet.

SIR JOHN BOWRING.

**Wisdom.**

The less power a man has the more he likes to use it.

The firmest friendship has been formed in mutual adversity.

If speech is silver and silence gold, how much is a dumb man worth?

Without the rich heart wealth is but an ugly beggar.

Not in the knowledge of things without, but in the perfection of the soul within, lies the true empire of man.

**A Little of Everything.**

The Trustees of the public schools in New Rochelle have announced a reward of \$50 and an elegant gold pen for the pupil who excels in elocution during the present year.

A broom with a heavy handle was sent as a wedding gift to a bride, with the following sentiment:

"This trifling gift accept from me,  
Its use I would command;  
In sunshine use the bushy part,  
In storm the other end."

If worn coins are heated gradually, the inscription will in almost all cases reappear.

A sheriff who was taking two convicts to the State prison last week, when the train stopped at Sing Sing, called out: "Step out, gentlemen; fifteen years for refreshments."

The word love, in the Indian language, is "Schemeladnamourchwager." How nicely it would sound, whispered softly in a lady's ear, "I schemeladnamourchwager you!"

A Yankee journalist who is bald offers a reward of one thousand dollars for a tale that will make his hair stand on end.

"Mother," exclaimed a little poet of four summers, "listen to the wind making music for the leaves to dance by."

**DEAN RICHMOND.**—Some one was telling me the other day, a new story about the late Dean Richmond, who was known far and wide for his gruffness of manner. Richmond was in the city at the time, and my informant, who was then a boy in a printing office, wished to get a pass over the Central Railroad. With this purpose in view he entered the office where the magnate was, fearing that he would be rudely rebuffed when he made his mission known. After a moment's hesitation he said falteringly:

"Mr. Richmond, I believe?"

"Yes; what do you want of me?"

"I should like, sir, to get a pass from Albany to Buffalo, as I can go up on the boat for nothing."

"On what grounds do you ask for a pass?" (This with a rising and very rough voice.)

"On the grounds, sir that I don't want to pay my fare."

Richmond, without another word, wrote out a pass and handed it to the applicant.

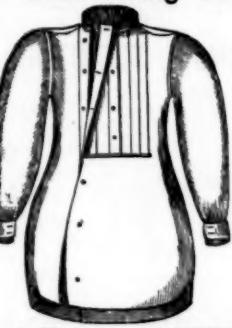
The boy took it saying, "Thank you; thank you, Mr. Richmond."

"You needn't thank me, youngster. You are the first person I've ever known to ask for a pass on the right grounds."

**A PRIZE VASE.**—In the course of excavations at Capua, a prize vase was recently found which was won at the gymnastic sports at Athens in the year 382 B. C. The skeleton that lay in the tomb beside it is probably that of the winner. Unlike our costly cups, it is simply an amphora of clay, with a painting that represents on one side the goddess Athene hurling her spear and striding between two columns, which indicate the place of contest, each column being surmounted by a figure of Victory; on the other side a group of wrestlers, with a youth on the left looking on, and an umpire on the right, a bearded old man, with branch of office in his hand. On the front is written the name of the chief magistrate at Athens for the year, and the words, "A prize from Athens." Such vases are rare, and, apart from their archaeological value in determining the character of this branch of art at a particular time, awaken a more general interest from the circumstances in which they are found.

Senator Clark said, that under the superintendence of Dr. French, the last three years, Vermont had advanced twenty-five years in her educational interests. Now that the driving Senator and the Dr. have thus publicly declared for the advancement of Vermont—the Dr. also made a determined speech—we may expect to hear of still greater advancement next year.

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Ludovico Monaldo, at the great age of one hundred and fifteen, wrote the memoirs of his own life.

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FULLY selected by our Western

BONDS Agent, for sale at prices that will

not exceed 15 per cent on the amount invested.

THOS. P. ELLIS & CO., Bankers, 14 Pine st.

Registered Bonds of Leavenworth Co., Kansas.

Value of property over \$20,000,000.

BONDS OF THE VILLAGE OF NEW LONDON, WIS.,

having but 10 and 12 years to run.

BONDS OF THE CITY OF LAGRANGE, LEWIS CO., MO., issued for Municipal purposes.

All payable in New York city. For sale at prices that will pay from 13 to 15 per cent. on the investment.

Also, other choice investment securities.

Call or send for descriptive circulars.

THOS. P. ELLIS & CO., Bankers, 14 Pine st.

## TEN PER CENT.

## KANSAS SCHOOL BONDS.

Principal and interest payable in New York. The safest and most desirable of bond investments. A few choice lots for sale below par.

## 7 PER CENT BONDS

OF JONES COUNTY, KANSAS,  
Registered with State Auditor.

Interest January and July, in New York.

Actual worth over.....\$16,000,000

Indebtedness only.....\$10,000,000

Price, 75 and interest.

Also, Missouri County Bonds, at prices that will pay

the investor 12 to 15 per cent.

THOMAS OTIS & CO., Bankers, 11 Pine street, New York.

CHARTERED BY THE

UNITED STATES,  
THE FREEDMAN'S SAVINGS AND TRUST COMPANY.

## ASSETS OVER \$4,000,000.

## A NATIONAL SAVINGS BANK.

NO. 185 BLEEKER STREET, NEW YORK.

## INTEREST 5 PER CENT.

Deposits on Demand with Interest due.

Accounts strictly private and confidential.

Interest paid by check, if desired, to depositors residing out of the city.

Interest paid in London Compound Interest Certificates PAYABLE ON DEMAND.

Bank Hours—Daily from 9 A. M. to 4 P. M., and on

Monday and Saturday nights, from 5 to 8 P. M.

SEND FOR CIRCULAR.

SAM L. HARRIS, Manager.

JOHN J. ZUILL, Cashier.

MANHATTAN SAVINGS INSTITUTION,

644 Broadway, cor. Bleeker St.

New York, June 24, 1872.

Forty-third Semi-Annual Dividend.

The Trustees of this institution have declared the

FOURTY-THIRD SEMI-ANNUAL DIVIDEND, on all

amounts of deposits now on hand (not entitled thereto,) on

the rate of SIX PER CENT. PER ANNUM, payable

on the third Monday in July.

Dividends not withdrawn will receive interest the same as deposit.

E. J. BROWN, President.

EDWARD SCHELL, Treasurer.

C. F. ALVORD, Secretary.

SEMI-ANNUAL REPORT

OF THE

DRY DOCK SAVINGS BANK,

241 and 243 East Fourth st.,

July 1, 1872;

RESOURCES.

Bonds and Mortgages.....\$2,161,500.00

Stock Investments.....6,504,550.00

Amount loaned on Public Stocks.....166,048.50

Real Estate, cor. 9 & 63rd Sts.....50,000.00

Market value.....\$62,631.25

Standing on books, \$62,631.25

Cash.....457,573.79

Accrued Interest and Premiums.....402,300.12

LIABILITIES.

\$9,688,744.26

Amount due Depositors.....\$9,112,309.25

Principal.....\$6,817,000.00

Interest credited for

1st July, 1872.....254,405.65

Excess of Assets over Liabilities.....\$76,434.57

\$9,688,744.26

Sworn to before me this 29th day of June, 1872.

W. W. LYON, Notary Public.

N. Y. COUNTY.

ANDREW MILLS, President.

JAMES L. STEWART, Secretary.

DRY DOCK SAVINGS BANK,

341 and 343 East Fourth St., New York.

SIX PER CENT. INTEREST

PAID ON ALL SUMS FROM \$5 TO \$200.

INTEREST allowed on deposits made